A. James Clark School of Engineering

Engineering Career Services

Resume Writing

Resumes are documents that summarize your education, relevant experience, and activities. You may write a resume to submit electronically as part of an application for an internship, job, graduate school or scholarship. You will need to bring printed copies of your resume to career fairs and other recruiting events with employers. Remember, the purpose of a resume is to secure an interview.

Employers seek candidates with strong written communication skills. Your resume is the first example of your writing that recruiters will see. It should be accurate, concise, and easy to read.

General Tips for a Winning Resume

DO...

- **Show, don't tell** why you are qualified using concrete, measurable examples of your accomplishments from jobs, projects, and activities.
- **Organize experience in sections** to allow you to put most relevant information near the top
- **List specific experiences** in reverse chronological order.
- **Focus on skills and experiences** that are most relevant to your current career objective but save some details for an interview.
- **Use "action" verbs** and active (not passive) voice to describe your accomplishments. Make every word count!
- **Keep it short** and direct, one page for undergrads.
- **Proofread before sending**! Have someone else review your resume too.
- **Submit job application** documents as a .pdf so formatting is preserved (unless the instructions say otherwise.)
- **Update your resume** at least once a semester while you are in school, then once a year.

DO NOT...

- Worry that you don't have enough experience. That's why you're seeking it now!
- Include a photo or personal information (social security number, marital status, birthdate) or anything that is irrelevant to your qualifications.
- Take up space listing every job duty or responsibility for every experience.
- Simply list adjectives, a bunch of buzzwords, or soft skills like creative, hard-working, enthusiastic, etc. without evidence.
- Use acronyms like UMCP or ENES100.
- Use multiple font colors or styles, or "cute" bullet points. You don't want the format to distract from the content.
- Use full sentences or first person pronouns: ~~I, mine, my, me,~~ etc.
- Expect your computer's spelling or grammar check to catch every error.
- Send your resume as a Google Doc to an employer.

1131 Glenn L Martin Hall | University of Maryland | College Park, MD 20742
http://eng.umd.edu/careers | 301-405-3863 | careerengr@umd.edu

RESUME FORMAT & AESTHETICS

General Resume Format

Your resume should be clear and simple to read. Make it easy for the reader to find the information that they need by using descriptive headings and ensuring that you list each experience in reverse chronological order within that category. This means starting each category with the most recent experiences.

In a 5-10 second scan of your resume, the reader should be able to identify your current career objective and your principal qualifications. This is best accomplished by how you organize your resume and the experiences you share.

Be sure to review the resumes in this handout for examples on how students have organized their resumes.

Document Size, Shape, & Formatting

- In the U.S., a resume should be on letter sized paper (8.5" x 11").
- Your entry level (undergraduate) resume should be on one page (for industry). If you have 5+ years of experience, are a PhD student, or you are applying for federal jobs, your resume may have more than one page.
- Keep margins between **0.5 and 1.0 inch on each edge**, including headers and footers.
- Align **text to the left**. Justified text can be harder to read.
- Align **dates and locations to the right**.
- **Avoid using resume templates.** It can be tricky to maintain format when you edit the document later.
- While it seems that Tables can help with alignment, they may not convert easily to text formats used by some document readers. Learn how to use styles and tabs in your document editor to better organize the information.
- Find a balance between text and white space. **Try not to have bullets with less than 50% of the line used**.
- Save space by using common abbreviations, such as "$100K" instead of "$100,000" or "100+ customers" rather than "over 100 customers".

Fonts, Symbols, & Colors

Use a single easy to read, TrueType font in **10-12 point size**. Here are a few good choices, shown here in 11 point size:

Arial Bookman Old Style Calibri Garamond Perpetua Times New Roman Tahoma

Use font styles and sizes in a uniform and consistent way throughout your resume:

Bold Underline *Italics* ALL CAPS SMALL CAPS

Use simple bullet points to list relevant accomplishments for each experience. Keep bullets points to 1-2 lines each:

• or ● or ▪ or – are acceptable

Avoid using multiple levels of bullets, or "cute" bullets like

NO ~~➢ or ☑ or ⊕ or ➲~~

For font color, **stick to black**. Colors tend to fade rather than stand out when printed in grayscale or scanned.

Online Applications & Your Resume

Some employers use applicant tracking systems (ATS) for screening resumes. Special formatting and online templates do not translate well when pasted into an electronic application's text box.

For that reason, avoid the following:

- Special symbols
- Columns
- Horizontal and vertical lines
- Tables
- Templates (including Word, Canva, or others)

Look carefully through each online text resume you submit; make sure that it is as legible and reader-friendly as it can be. Remember, your electronic resume will probably be scanned by software AND read by a human being.

RESUME SECTIONS

Contact Information

Include:
- Legal name (add preferred name in parentheses) between first and last name
- Mailing address (city, state is acceptable)
- Phone number with area code
- Email address

Optional:
- Pronouns
- LinkedIn or personal website/portfolio url (add short link not hyperlink)
- U.S. citizenship, permanent residency, security clearance

Omit:
- Date of birth, social security number, or other irrelevant personal information
- Photo

GEPETTO C. COLLODI (They/Them)
Pescia, MD • (301)123-4567
gcollodi1883@umd.edu • in/gepettocollidi

Education

Include:
- Degree seeking (B.S., M.S., etc.)
- Major field of study and concentration/track/focus
- Expected graduation (Month Year)
- University name & location
- GPA (cumulative and/or major, if ≥ 2.8)

Optional:
- Other colleges you have attended
- Study abroad experience
- Honors/awards/minors/certificates/special programs
- Living/learning programs
- Course highlights (see next page)

Omit:
- High school name (after first year of college)
- AP or other college entrance test scores

B.S. Mechanical Engineering — **Expected May 2025**
University of Maryland — College Park, MD
Major GPA: 3.75

A.S. Engineering — **May 2022**
Prince George's Community College — Largo, MD
Dean's List all semesters — Cumulative GPA: 3.97

Skills

Include:
- Software and hardware used in your target industry or type of job
- Certifications valued in your industry
- Lab skills, techniques, protocols
- Relevant hands on skills, equipment
- Foreign languages (include fluency level)

Omit:
- Subjective traits (creative thinker, team player)
- Skills that are not relevant to current career objective

Programming: Java, C++
CAD: Autodesk Inventor, SolidWorks
Engineering: Machining, rapid prototyping
Languages: Spanish (fluent written and spoken)

Experience

Types of experience to include:
- Internships and co-ops (paid or not)
- Previous or current jobs
- Technical projects (independent or class)
- Engineering competitions or club projects

For each experience, include:
- Your job title or role
- Name of company/project/organization
- City, State or Country
- Dates employed (months and years)
- Where needed, bullet points with succinct description of relevant accomplishments in a consistent verb tense

Group experiences under headings that catch the reader's eye, such as:

TECHNICAL PROJECTS
ENGINEERING EXPERIENCE
LEADERSHIP EXPERIENCE
RESEARCH EXPERIENCE
WORK EXPERIENCE

TECHNICAL EXPERIENCE

UMD Over Terrain Vehicle Project — College Park, MD
Mechanical Sub-team Leader — Sept. – Dec. 2022

GCC Toy Factory — Toscana, MD
General Manager — Jan. 2020 – Feb. 2022

RESUME SECTIONS, CONTINUED

Depending on your background and the positions/industries you're considering, you might also include some of the following information on your resume. Although **optional**, these categories provide insight into your qualifications.

Activities and Affiliations

Employers report that they favor students who have held leadership positions in undergrad or who are actively involved in campus and community organizations outside the classroom.

Include:

- Activities that highlight transferable skills and interests relevant to the job or industry
- Professional organizations
- Student clubs
- Sports teams or performance groups
- Volunteer work or community organizations
- Remember to include your role/position
- Remember to include positions held along with dates
- Can include bullet points that highlight accomplishments/responsibilities

Engineering Fraternity College Park, MD
Philanthropy Chair Jan. 2022 – Present

- Organized carnival with games and attractions, raising over $4,000 for Lost Boys Foundation.

Honors and Awards

Honors and Awards can be included under Education or as a stand-alone section.

Include recent/relevant/prestigious:

- Scholarships, especially merit-based
- Dean's List/ Honor Roll
- Fellowships and research grants
- Recognitions within your industry
- Add date awarded
- Brief description (**if you have space)**

Omit:

- Middle school and most high school awards

Banneker/Key Full Tuition Scholarship Aug. 2020 – Present
Dean's List Fall 2021, Spring 2022
2022 Co-op/Intern Award May 2022

Objective or Professional Summary

Typically, you should forego an objective/summary. It may be helpful if your career objective has changed, as it highlights relevant expertise/skills in a short paragraph or series of bullet points.

Include the language in the job description:

- Target industry and type of work
- Highlight relevant experience and keywords

Omit:

- Subjective buzzwords (hard-working, excellent)
- Generic statements

Course Highlights

Where possible, include class projects under Experience rather than only listing the classes you've taken.

If you do choose to list classes, include:

- Upper level electives only
- Courses in which you have particular interest
- Course titles

Omit:

- Classes everyone in your major takes
- Fun classes with no relevance to the job
- Course numbers

Publications, Presentations, and Patents

If you are seeking research positions, especially in academia, it can be valuable to list peer-reviewed publications and conference proceedings. This is usually less important for applied industry positions. Follow the guidelines used by faculty in your department if you include a publications section.

If you have a patent (pending or otherwise), you can include this as evidence of an accomplishment.

How to Highlight Accomplishments

You have **5-10 seconds** to get a recruiter's attention. The category titles described on pages 3-4 help orient the reader and the bullet points used to describe your experiences provide depth. Show what you can do by including examples of what you have done well. Highlight examples of your work that show both HR screeners and technical hiring managers that you know what interests you and that you have what it takes.

Before:

UMD Over Terrain Vehicle (OTV) Project College Park, MD
Team Member September – December 2022
- Worked with a team of students to build an OTV that navigates obstacles
- Made presentations about project progress

"Worked with…." How many people were in your team and what was the goal? What were the constraints you faced time-wise and budget-wise?

"Made…" Is this the best word to describe what you did? What did you use for these presentations? Did you only present to the professor? How often did you present?

Results & Metrics: Bullet points should address the results of a project. Were you successful in the final product? If so, can you quantify your accomplishments? If not, how did your team adapt to the challenges you faced?

Ask these questions so you can write bullet points that effectively demonstrate the impact of your work:

Who? Who did the work – did you complete it independently, with a partner, or within a team?

What? What was the subject matter or objective?

Why? Why was your work or project important? What was the purpose? How did it impact others?

How? How did you do this work? What engineering software, applications, or tools did you apply?

When? Did you beat a deadline or work within a certain timeframe?

How much? How can you quantify your work or results?

What happened? What happened to your work after you completed it? Did you give a presentation? To whom?

Big picture? What evidence do you have of the effectiveness or impact of your work?

After:

UMD Over Terrain Vehicle (OTV) Project College Park, MD
Team Member September – December 2022
- Collaborated with 8 students in designing and building an OTV to traverse an obstacle course within 3 months on a budget of $350
- Utilized Fusion 360 to model and 3D print vehicle components
- Developed 30 technical drawings to use in engineering reports and 3 presentations showcasing vehicle designs and team progress to the class and professors
- **(If Successful)** Successfully navigated the course in under 3 minutes and identified the water depth and pollution level
- **(If Unsuccessful):** Assessed the final product within the scope of the constraints, identifying 3 areas where improvements could be made to lead to a successful run in the obstacle course

Give concrete evidence of your contribution to demonstrate the magnitude of your work and how you used relevant tools and skills (remember to use present tense for current roles and past tense for previous experiences). Don't just copy and paste the job description that lists what you were supposed to do every day. Don't include subjective assessments of what you think you can do or what you learned. In your bullet points, be sure to incorporate verbs that describe your specific actions (consider including verbs from the list on the next page).

Action Word List

Supervise
Administered
Controlled
Coordinated
Delegated
Demonstrated
Directed
Governed
Guided
Headed
Led
Managed
Monitored
Orchestrated
Oversaw
Presided
Programmed
Scheduled

Help
Accompanied
Assisted
Collaborated with
Dealt with
Guided
Notified
Performed
Served
Supported

Decision
Activated
Approved
Chose
Decided
Determined
Enlisted
Hired
Ordered
Recruited
Resolved
Selected
Specified

Show
Conducted
Demonstrated
Exhibited
Illustrated
Performed
Proved
Represented

Change
Adapted
Adjusted
Applied
Cut
Eliminated
Implemented
Improved
Increased
Innovated
Installed
Introduced
Modified
Proposed
Reconfigured
Reconciled
Reduced
Remodeled
Reorganized
Repaired
Restored
Revamped
Revised
Stimulated
Transformed

Influence
Advised
Convinced
Counseled
Dispatched
Educated
Encouraged
Guided
Innovated
Motivated
Negotiated
Orchestrated
Persuaded
Promoted
Recommended
Referred
Stimulated
Suggested
Supported

Research/Technical
Analyzed
Assembled
Assessed
Built
Calculated
Catalogued
Charted
Collected
Compared
Compiled
Computed
Constructed
Debugged
Defined
Diagnosed
Discovered
Edited
Engaged
Estimated
Evaluated
Examined
Experimented
Extrapolated
Forecasted
Graphed
Gathered
Identified
Implemented
Indexed
Inspected
Investigated
Isolated
Maintained
Measured
Observed
Organized
Perceived
Pinpointed
Planned
Prepared
Projected
Recorded
Researched
Reviewed
Screened
Solved
Surveyed
Synthesized
Tested
Traced
Updated

Communicate
Advertised
Briefed
Broadcasted
Consulted
Contracted
Explained
Expressed
Informed
Interacted with
Interpreted
Interviewed
Instructed
Lectured
Marketed
Met with
Negotiated
Publicized
Published
Presented
Referred
Related
Reported
Taught
Trained
Transmitted

Efficiency
Accelerated
Applied
Expanded
Expedited
Facilitated
Improved
Integrated
Maintained
Reinforced
Reduced
Streamlined

Achieve
Attained
Affected/Effected
Completed
Enlarged
Exceeded
Mastered
Participated in
Produced
Provided
Succeeded
Won

Office Activities
Billed
Budgeted
Completed
Distributed
Documented
Filed
Kept
Handled
Illustrated
Logged
Obtained
Operated
Packed
Processed
Produced
Purchased
Ran
Received
Saved
Sold
Shipped
Typed

Create
Arranged
Compiled
Composed
Conceived
Conceptualized
Designed
Developed
Devised
Drafted
Established
Fabricated
Formulated
Founded
Generated
Implemented
Initiated
Invented
Launched
Made
Opened
Originated
Produced
Set up
Structured
Wrote

"Federalizing" Your Private sector Resume

If you are a U.S. citizen interested in applying for internships, Pathways or full time positions for the U.S. Federal Government, you will need to **adapt your resume to meet the government's specific requirements.**

How is a federal resume different from a private sector resume?

A federal resume is **specific to a particular job opening**, and often requires certain information that is not needed in (or that you might include in a cover letter) in the private sector.
It is generally **2-3 pages in length**, but can be as many as 5-6 pages, in **11-12 point font**.
The federal hiring process **requires more personal information** to determine eligibility for positions, taking into account military experience, disabilities, and past federal experience.
Your federal resume should **incorporate keywords from the vacancy announcements**, and detailed descriptions of your achievements for relevant projects and other experiences.

How do I create a federal resume?

When you create an account at http://USAjobs.gov, you are given the option to upload or build a resume. *We highly recommend using the Resume Builder.*

- Give yourself plenty of time (3-4 hours) to create your first (template) resume using the builder.
- Before you start the resume builder, prepare a copy of your private sector resume that includes the information you will need to add:

  Heading – You can add citizenship, security clearance, and/or veteran status, if applicable to your application.

  Work Experience – Employer name, mailing address, your job title, exact dates of employment, salary, and detailed duties and accomplishments.

  Education – School name, location, GPA, major/minor, degree seeking or awarded, credits completed, honors awarded upon graduation; relevant coursework, licensures or certifications. If requested or relevant to the position, you can include high school information. You may need to upload your transcript, as well.

  References – You may add up to 5 references. Name, Employer, Job Title, Phone and Email. Indicate whether the person is a personal or professional reference.

  Job Related Training – List titles and completion dates of training courses you've taken (besides the coursework you listed in Education) that are relevant to the position for which you are applying.

  Language Skills – Indicate proficiency level for speaking, reading, and writing.

  Organization/ Affiliation – List organization name and your role or affiliation if it is relevant to the position. May include volunteer work. No room for details here.

  Professional Publications – Academic or industry journal publications, conference proceedings, etc.

  Additional Information – Add information relevant to the position that did not fit under other categories, such as honors, awards, projects, competitions, leadership activities, skills (such as software proficiency or typing speed) or additional items requested in a specific job announcement.

- Paste the information into the resume builder.
- Adapt your template resume in USA Jobs to include keywords and achievements that match each job announcement. You can save up to five (5) resumes in your USAJobs account.

Additional Resources for Federal Resume Writing

- http://usajobs.gov
- http://gogovernment.org/how_to_apply/write_your_federal_resume/create_your_resume.php
- http://www.dhs.gov/tips-writing-federal-resume
- http://www.archives.gov/careers/jobs/forms/resume-guide.pdf

Sharing Your Resume

Where will you be taking or sending your resume this year? Before you share, remember to proofread!

Career Fairs - Employer Information Sessions - Professional Networking Events

If you will be sharing your resume with a person you meet face to face, print it on a good quality printer. Black ink on white paper is preferred. Make more copies than you think you will need. Carry copies of your resume in a padfolio or sturdy folder to keep the paper from getting wrinkled or stained.

Careers4Engineers - Employer Website - Job Search Portals - Email

As an internship/job seeker, you will apply for positions through online portals such as Careers4Engineers. Be sure to follow instructions regarding file formats. If no instructions are given save your resume and supporting documents (cover letter, writing sample, unofficial transcript, etc.) as a .pdf. Before you upload to the portal or attach them to an email, check that all your formatting has been kept. Remember to save files with appropriate naming conventions, such as (LastName_FirstName_CompanyName or LastName_FirstName_JobTitle).

Job Interviews

If you are invited to an interview for a job or internship, be sure to bring some copies of your most up-to-date resume. Sometimes, a few weeks (or months) pass from the time you apply to the time you actually meet with the hiring manager. Be sure to include updates on projects you've completed or other relevant new information.

More Resume Writing Resources

Career Workshops

Engineering Career Services staff advisors lead interactive resume workshops that help you learn how to write a resume or improve the one you have so that you can land your engineering internship or job search. Occasionally, recruiters from companies that hire Clark School students will lead the workshops.

Resume Critiques

It is always a good idea to have a career advisor review your resume before sharing it with an employer. **A. James Clark School of Engineering students must have their resumes critiqued with Engineering Career Services before they can access job postings on the Careers4Engineers (C4E) portal.** Bring your printed resume in to get feedback from a peer or staff career advisor.

Engineering Career Services | 1131 Glenn L. Martin Hall
Walk-in hours are Monday - Friday, 8:30 a.m. - 4:30 p.m. No appointment is necessary.
Virtual appointments are available 1:00 p.m. - 4:00 p.m. over Zoom. Schedule through C4E.

Recruiter-in-Residence Resume Clinics

At the beginning of each semester, we offer "Recruiter-in-Residence" resume clinics, where you can sign up to have your resume critiqued by an employer or Clark School alum. Sign up via Careers4Engineers.

Beyond Engineering

GoinGlobal offers resume advice by city/region (access through Careers4Engineers).

The University Career Center (3100 Hornbake Library) sponsors workshops and critiques for all University of Maryland students. See the Career Center's web page, careers.umd.edu for more information.

The Writing Center in the Department of English has general resources for improving your writing. They also offer individual appointments for undergraduates who need help with a writing assignment.

Frequently Asked Questions

Our goal is to demystify common resume conundrums so that you can move forward with confidence and clarity. Look through the following and if your situation isn't addressed, let us know. We'll add it to this handout.

I'd like to use a resume template that I found online. What are your thoughts on that?
Resume templates with columns, graphs and text boxes are discouraged. It makes it harder for the employer to scan your resume and find what they need. These tools can also interfere with Applicant Tracking Systems (ATS).

Can I list courses on my resume?
Yes, but be judicious in what you share and how. Projects are more valuable than listing classes because they demonstrate application of the material.

- A truncated course title suffices, ex., Intro to Eng Design; avoid course numbers.
- Stick to upper level and technical electives which offer a specialized knowledge; avoid courses common to all engineers.

How do I effectively list course projects?
Course projects can showcase your engineering skills , experiences, and leadership while offering helpful depictions of your work. Here are a few tips: include your role (team lead, team member, etc. Skip the course number and offer a truncated version of the course name. Treat the course project like any internship /job and describe your contribution.

How long can I keep high school activities on my resume?
Generally, you should transition your resume by your 2nd yr. Occasionally, students will keep high school engineering projects on their resume beyond the first year to demonstrate a particular skillset.

Should I add References Available Upon Request to my resume?
There is no need to add this information. If an employer would like to see references, they will ask after your interview.

What's the difference between a resume and a CV?
A resume highlights your major accomplishments and is 1-2 pages. A CV lists all your accomplishments and has no page limit. Resumes are used in industry careers and CVs are preferred in academia. Only PhD students need a CV.

How often should I update my resume?
As often as possible! Set a reminder on your calendar to reassess your progress and achievements monthly or at the end of each semester. That way, you are always ready to share it and you won't miss unexpected opportunities that might come your way.

How do I...

I've held two different positions in the same organization. How do I list them?
To save space, identify multiple roles within an organization in a single entry under that organization.

LEADERSHIP EXPERIENCE

American Society of Civil Engineers, Concrete Canoe **College Park, MD**
Program Manager 2021-Present
- Manage concrete canoe team to successfully design, construct, and compete at the regional competition

Lead Hull Designer Aug. 2019-May2021
- Researched various types of canoes and evaluated them based on cost, materials and labor
- Conceptualized and drafted 25 by 8-foot-long canoe model using DELFTship

How do I...continued on next page

Include my GPA if it isn't as high as I would like?
Although there are some exceptions, the general rule is to include it. Here are two scenarios that come up often and our recommendations:

My major GPA is higher than my cumulative. Can I list that on my resume?
Yes! See the format below.

EDUCATION

University of Maryland, A. James Clark School of Engineering College Park, MD
B.S. Civil Engineering, Cumulative GPA: 2.98, Major GPA: 3.12 May 2023

My major GPA is low and I worry about including it in my resume.
If your GPA is below a 3.0, the decision on whether or not to list it is your decision and should be determined on a case-by-case basis. Note, if you do not include your GPA, employers may assume that it is *very* low.

EDUCATION

University of Maryland, A. James Clark School of Engineering College Park, MD
B.S. Civil Engineering May 2023

How do I include security clearance on my resume?
You have multiple options.

At the top of your resume, include it with your contact information.

OLIVIA JENSEN (she/her)
College Park, MD | 301.123.1212 | engstudent@terpmail.umd.edu | D.O.D. Secret Clearance

At the bottom of your resume, include it in the Skills section.

SKILLS and CLEARANCES
C/C++, Ruby, Java, OCaml, Prolog, Verilog, Assembly (Mips, y86), SQL Parse Firebase, MongoDB, iOS, Android
D.O.D. SECRET CLEARANCE

At the bottom of your resume, include it in the footer.

Security Clearance

How do I include my LinkedIn URL?
Customize your URL following the steps below. Feel free to start with "in/" instead linkedin.com.

COLBY HORVATH (they/them)
College Park, MD | 301.123.1212 | engstudent@terpmail.umd.edu |in/colbyhorvath

1. Go to your LinkedIn profile.
2. Click on "Edit public profile & URL" at the top right of the screen.
3. Click on the pencil icon in the "Edit your custom URL" at the top right.
4. Eliminate the digits that follow your name; you may need to add a middle name or middle initial.
5. Remember to click "Save" when you're done.

References

PLEASE NOTE: REFERENCES ARE NOT INCLUDED ON RESUMES. CREATE A SEPARATE DOCUMENT!

References are an important part of the hiring process. While you no longer need to type "References available upon request" or a list of references on your resume, it is a good idea to have a separate document with a typed list of at least three professional references available when you apply to jobs or internships. Then, if you are asked for references as you apply or at the interview, you will be prepared. We recommend including the same header as you have on your resume to make a cohesive looking application.

Whom to Ask: References may include people such as former supervisors, professors, teaching assistants, or advisors. Choose people who can speak about your skills and abilities. Unless the application specifically asks for a personal reference, do not list a family member or friend as a reference.

How to Ask: First, ask the people you'd like to use if they can provide a reference for you if necessary. This way you can ensure that your references know to expect calls, and you can provide them with any details about your background and job search that may assist them. It is a good idea to provide your references with an up-to-date copy of your resume and the job description.

> Good Morning Ms. Jane Doe,
> I hope you've been doing well! How is your research on thermodynamics in electrochemical storage systems?
> I really enjoyed your thermodynamics class, and appreciate your continued mentorship throughout, helping me in office hours and in scheduled meetings to make sure I understood the material. As a result of your guidance and encouragement, I am now pursuing a job in the thermodynamics field. I was wondering if you would be willing to act as a reference for me in the future? I've attached my most recent resume for your information. Please let me know if you have any questions or would like to meet to discuss further.
> Thank you for the consideration,
> John Smith

Build Good References: Participate in class and attend office hours to discuss the subject matter to build a positive professional relationship with faculty. Your genuine demonstration of curiosity may even lead to a research assistant opportunity. Showing initiative and a willingness to learn at work, whether in an internship or part-time job, will help your supervisor remember you in a positive light. Stay in touch with your past supervisors and colleagues, so you keep up with each other's professional paths.

Sample Reference Sheet

Have a reference sheet ready in case you need to provide it with your application or at an interview.
Use the same heading and format as your resume.

For each reference, include the:

- Full Name
- Current Job Title & Employer
- Work Mailing Address
- Email
- Phone Number
- You can also include a short statement that indicates how you know the person.

If a reference is outside the U.S., you may mention the time difference, or indicate if it is best to contact them by email (due to language or time difference).

Jane Doe Smalltown, MD |(123)456-7890 | email@email.com

References

Mr. David Steel
Branch Manager, Chevy Chase Bank
1341 Cherry Hill Road
College Park, MD 20742
(301) 555-0123
dsteel@ccbank.com

Dr. Ellen Setcher
Asst. Professor, Department of Civil Engineering
University of Maryland
1143 Glenn L. Martin Hall
College Park, MD 20742
(301) 405-1234
esetcher@umd.edu
(Academic Advisor)

Sample Resumes (click on the title to jump to the resume)

Note

You may also find sample resumes online and at campus career centers, but be sure to make your resume your own – show employers what makes you uniquely qualified for the position.

Need help creating your resume?

Schedule a virtual appointment through C4E, visit our office in 1131 Martin Hall, or email us at careerengr@umd.edu

Sample Resume – First Year Fall Semester

Amaya A. Novato

College Park, MD 20742
student@terpmail.umd.edu ● (410) 123 - 4567

EDUCATION

University of Maryland — College Park, MD
B.S., Mechanical Engineering — Expected May 2026
FLEXUS: Women in Engineering Living and Learning Community — Expected Citation May 2024

Severna Park High School — Severna Park, MD
High School Diploma, GPA 4.2 — June 2022

RELEVANT PROJECTS

UMD Over Terrain Vehicle Project — College Park, MD
Structures Sub-team Leader — Sept. 2022 – Present

- Collaborate with a group of 8 students to design, build, and test an autonomous over terrain vehicle on a budget of $350 within 3 months
- Lead the structure sub team to build the structure and shell of the over terrain vehicle according to size and weight specifications
- Create hand and technical drawings of vehicle components in PTC Creo Parametric

Project Lead the Way (PLTW) Puzzle Cube Project — Severna Park, MD
CAD Sub-team Leader — Sept. 2020 – May 2021

- Designed and constructed a wooden puzzle cube made up of 8 pieces for Project Lead the Way Engineering Program (PLTW)
- Used hand drawn technical drawings and CAD programs SolidWorks and Inventor to design and plan puzzle before construction
- Awarded a "challenging" level of difficulty for puzzle, because testers were unable to solve it in less than 6 minutes during trials

LEADERSHIP EXPERIENCE

Severna Park High School Tutoring Center — Severna Park, MD
Math Tutor — Aug. 2020 – May 2021

- Tutored peers in Algebra, Geometry, Pre-Calculus, and AP Calculus
- Worked one-on-one with each student to identify areas of weakness and gave the instruction needed to allow students to effectively learn concepts
- Communicated student progress and student feedback to supervisor

ACTIVITIES

The UMD Treblemakers, *Member* — Sept. 2022 – Present

- Sing in an all-female a cappella group on campus

National Honor Society, *Treasurer* — Sept. 2020 – May 2021

- Maintained organization expenses and fundraisers, including management of concession stand at the Navy Football Stadium

SOFTWARE SKILLS

PTC Creo Parametric, MATLAB, Microsoft Word, Excel, PowerPoint

Sample Resume - First Year Spring Semester

Patrick Kagaku

Davidsonville, MD • (410) 410-4104
umdterps@gmail.com • in/pkengineer

EDUCATION

University of Maryland — College Park, MD
BS, Materials Science and Engineering (GPA: 4.0) — Expected May 2026

HONORS

Honors College, University Honors — Citation Expected May 2026
Department of Materials Science Scholarship — Sept. 2022 - May 2023
MD State Scholarship for Academic Excellence — Sept. 2022

TECHNICAL EXPERIENCE

UMD Engineering Design Project — College Park, MD
Over Terrain Vehicle Sub-Group Leader — Sept. - Dec. 2022

- Managed a team of 5 students to design, build, and test an over terrain vehicle, one of three vehicles out of 60 to successfully navigate the course
- Programmed OTV to navigate within 250 mm of the edge of a water pool, detect the water source, and transmit its pollution level
- Determined power requirements of design and chose proper battery
- Designed and constructed circuitry for vehicle using Arduino
- Created Pro-Engineer design drawings and 3D printed axles and motor parts
- Wrote and presented a 25-page design report to faculty

WORK EXPERIENCE

Lighthouse Pools Management, Inc. — Hyattsville, MD
Experience Pool Operator and Manager — May - Aug. 2019 - 2022

- Mediated disputes arising between workers, delegated assignments to other lifeguards and created weekly work schedule
- Managed pool cleanliness and ensured pool operated up to code

Lifeguard — May - Aug. 2018 - 2020

- Promoted health and safety of pool patrons through enforcement of rules and maintenance of pool chemistry within the guidelines set by the county
- Helped maintain pool cleanliness under supervision of manager

SKILLS

Applications: Creo Parametrics, MATLAB, Arduino, Microsoft Word, Excel, PowerPoint
Languages: Korean (Fluent), American Sign Language (Conversant)

ACTIVITIES & AFFILIATIONS

University of Maryland Repertoire Orchestra, *Member* — Sept. 2022 - Present
Club Table Tennis, *Member* — Sept. 2022 - Present
National Society of Collegiate Scholars, *Member* — Sept. 2022 - Present
The Minerals, Metals, and Materials Society, *Member* — Sept. 2022 - Present

Sample Resume – Sophomore

Liliana A. Lopez

terpstudent@terpmail.umd.edu, (301) 111-1234
College Park, MD

EDUCATION

University of Maryland — College Park, MD
B.S., *Chemical & Biomolecular Engineering* — **GPA 3.76** — Anticipated May 2025
- Barbara J. Dieter Scholarship, A. James Clark School of Engineering — Awarded Sep. 2021

SKILLS

Software: MATLAB, C++, ChemCAD, Microsoft Access, Excel
Laboratory: Thin-Layer and Column Chromatography, Oscilloscope, Inorganic and Organic Synthesis
Languages: Spanish (fluent), Portuguese (intermediate)

TECHNICAL EXPERIENCE

Johns Hopkins University Applied Physics Laboratory — Laurel, MD
Intern: Sentiment Extraction – Milton S. Eisenhower Research Center — Jan., May – Aug. 2022
- Researched natural language processing (NLP), specifically information extraction
- Parsed sentences using Stanford typed dependency (SD) representation to extract textual relations
- Developed feature set from tagged words for input into conditional random field (CRF) model

University of Maryland Over-Sand Vehicle Project — College Park, MD
Team Member — Sep. – Dec. 2021
- Collaborated with 6 team members to design and build an autonomous over sand vehicle that successfully identified and analyzed debris in its path using Arduino programming
- Constructed chassis and assembled final vehicle with two other sub team members
- Presented formal design reports to engineering faculty using Microsoft Excel and PowerPoint

LEADERSHIP EXPERIENCE

University of Maryland Office of Multiethnic Student Education — College Park, MD
Peer Tutor — Jan. 2022 – Present
- Provide walk-in tutoring for calculus and chemistry to undergraduate students

Society of Women Engineers — Beach Town, CA
Regional Collegiate Communications Editor (RCCE) — Oct. 2021
- Demonstrated new and more efficient blog format to 200 senior members at national meeting

ACTIVITIES & AFFILIATIONS

Biomedical Engineering Honor Society, Alpha Eta Mu Beta, *Member* — Jan. 2022 – Present
University of Maryland Terp Runners Club, *Member* — Sep. 2021 – Present

Sample Resume – Seeking Engineering Co-op Position

KEITH HERMANDAD (HE/HIM)

Springfield, IL 21209 • (555) 555-5555 • student@umd.edu

EDUCATION

University of Maryland: A. James Clark School of Engineering College Park, MD
B.S. Electrical Engineering, **3.5 GPA** Expected May 2025

WORK EXPERIENCE

ITT- Advanced Engineering and Sciences Bowie, MD
Technical Intern Level 4 – Algorithm Team Member May – Aug. 2022

- Completed the traceability of the engineering analysis for the Spectrum Management Transition Initiative (SMTI) project.
- Aided head engineer of algorithm team in creating technical engineering specifications.

Software Unlimited, Inc. Baltimore, MD
Technician May – Aug. 2019, 2020

- Assisted an algorithm team in creating technical specifications under direct supervision of the head engineer for ITT.
- Updated medical software to the latest version of Medical Mastermind, a powerful medical-practice management product, at over three hundred doctor offices.

RESEARCH EXPERIENCE

Honors College: Gemstone Research Program Citation Expected May 2025

- Selected to participate in a four-year interdisciplinary research program for high performing honors students at the University of Maryland.
- Submitted design proposals as part of a 6-member team for a global positioning system and inertial navigation unit to provide walking directions from building to building.
- Initiated data collection for global positioning operation and communication protocol.

LEADERSHIP EXPERIENCE

Alpha Sigma Phi, Fraternity College Park, MD
Philanthropy Chair May 2020 – Present

- Establishing a community basketball tournament, which raised over $4000 for the Livestrong Foundation.

Recruitment Committee Member Jan. – May 2020

- Collaborated with Vice President in writing amendment to local chapter constitution that clearly defined fraternity's judicial system.
- One of 25 members selected to attend 2018 Ralph F. Burns Leadership Institute.

Honors College, Gemstone

SKILLS

Proficient: MATLAB, AutoCAD, MicroStation, Creo Parametric, Robotics Lab, MS Excel
Exposure: HTML and Java

Sample Resume – Seeking Consulting Internship

Emily Strazak

1234 Turtles Road, Newark, NJ 07101
862.222.5555 - umdstudent@umd.edu

Education

University of Maryland College Park, MD **GPA: 3.62**
B.S Fire Protection Engineering Expected May 2024
- **Banneker Key Scholar** Awarded August 2020

Technical Experience

QUEST Honors Program College Park, MD April 2021 – Present
- Selected for competitive interdisciplinary quality management program that focuses on customer value management, process and product design, problem solving, project management, customer satisfaction, and teamwork
- Collaborated with a team of 6 students for Unilever in order to establish a Foreign Material Reduction Plan, utilizing several Six Sigma and Lean strategies

Accenture Federal Services, Intern Arlington, VA May – August 2022
- Analyzed business management process to deliver solutions based on critical industry insight
- Delivered weekly presentations to clients to help develop a wide range of knowledge about innovative software technologies in business management

Digital Management, Inc., Intern Bethesda, MD January 2022
- Developed digital management process to effectively store customer data, minimizing processing errors
- Researched complex U.S. Government IT Services market, and presented a thorough analysis of competition to clients

Naval Systems Missions, Intern Washington, DC May – August 2021
- Applied high-expansion foam to mission equipment as a fire suppressant using a modified, closed cup burner apparatus
- Visited client sites and facilitated workshops focused on applying high-expansion foam product to customer devices
- Observed data from full-scale, low-expansion foam pool fire experiments and delivered recommendations in order to ensure safety of delivered products

Honors and Awards

College Park Scholars, Public Leadership Program August 2021
Salamander Membership Honorary Fire Protection Engineering Society April 2021

Activities

Society of Fire Protection Engineers, Member August 2021 – Present
University of Maryland Jewish Muslim Alliance, Member August 2020 – Present
Mighty Sound of Maryland Marching Band, Pep Band August 2020 – Present

Computer Skills

Adobe Photoshop, InDesign; LabView; Microsoft Office (Word, Excel, PowerPoint, Publisher)

Sample Resume – COVID-19 Example

ANTHONY (TONY) JONES

123-456-7890 • sbioe@terpmail.umd.edu
8000 Boteler Lane, College Park, MD 20740

EDUCATION

University of Maryland — College Park, MD
B.S. Bioengineering — **GPA: 3.98** — *Expected May 2022*
- Dean's List — Fall 2018 – Spring 2019

SKILLS

Laboratory: Bacterial culture, Stem cell culture, Gel Electrophoresis, ELISA, FRET, Western Blotting
Software: MATLAB, LabView, Microsoft Office Suite

TECHNICAL EXPERIENCE

Pfizer — Collegeville, PA
Intern (Offer Accepted, Rescinded by Company Due to COVID-19) — *May 2020 – Jul. 2020*

University of Maryland – Virology Laboratory — College Park, MD
Team Member — *Jan. 2020 – May 2020*
- Researched potential antibodies for COVID-19 on a team of 6 other undergraduate students
- Utilized ELISA in order to test coronavirus binding affinity to well documented viral antibodies
- Proposed experimental plan to contribute towards characterizing COVID-19 in a 20-page design report & one-hour presentation to UMD and NIH faculty

NIH Oncology Lab — College Park, MD
Researcher — *Jan. 2018 – May 2018*
- Determined potential of an unknown drug as a cancer treatment by identifying apoptosis in HL60 Leukemia cells
- Performed Cell Viability dye-Exclusion, Mitochondrial Membrane, Annexin V/Propidium Iodide, and Colorimetric Caspase Activity Assays, as well as Western Blotting to monitor caspase and antibody activity of HL60 cells treated with drug
- Publication: Swollman, R.; Capone, T; **Jones, A**, Apoptosis in HL60 Leukemia Cells. Journal of Engineering Topics 2018, vol. 10, pp 75-94.

LEADERSHIP EXPERIENCE

Meals on Wheels — Spring, MD
Volunteer — *Mar. 2020 – Present*
- Helped deliver groceries to homebound elderly that could not safely purchase their own
- Coordinated with other volunteers to strategize and use proper safety measures

ACTIVITIES & AFFILIATIONS

Engineering World Health – *General Body Secretary* — *Sept. 2018 – Present*
Biomedical Engineers Society – *Member* — *Sept. 2017 – Present*
Alumni Cup – *Bioengineering Team, Rube Goldberg Machine Competition* — *Feb. 2018*

Sample Resume – Seeking Co-op/Internship in Construction

Olivia S. Erbauer

College Park, Maryland
in/otransfer
otransfer@gmail.com
(112)-345-5555

Education

University of Maryland College Park, MD Expected Dec 2024
B.S. Civil Engineering, Project Management Track GPA: 2.7
Montgomery Community College Rockville, MD May 2021
A.S. Mechanical Engineering (Honors Program) GPA: 3.5

Relevant Coursework

Engineering for Sustainability | Groundwater Hydrology | Project Planning, Estimating, & Scheduling

Internship Experience

Clark Construction—Engineering Intern San Francisco, CA May - Aug 2022

- Developed a database to be used for future bids by collecting, sorting, and analyzing a wide variety of data from previous projects.
- Generated Requests for Information of concrete related inquires by utilizing Google Slides and Microsoft Office.
- Tracked supplies and financials by keeping inventory of multiple subcontractor deliveries through the utilization of logs, saving the project over $1,500.

Technical Projects

Civil 3D Gravity Pipe Network—Independent Project Frederick, MD July 2021

- Utilized AutoCAD Civil 3D to design a gravity pipe network and compute energy and hydraulic grade lines through analysis of rainfall data.
- Reviewed results of calculations graphically in a .csv file and modified network according to results.

Energy Efficient House Design Project—Team Leader College Park, MD Sep - Dec 2020

- Designed and constructed a small-scale energy efficient house to explore sustainability ideas under a $500 budget on a team of four.
- Individually calculated and investigated size and quantity of solar panels affordable and realistic for the roof
- Presented 20-page design report to board of six engineering professors.

Work Experience

Department of Transportation Services—Student Driver College Park, MD Aug 2020 - Present

- Coordinate timely and reliable UM-Shuttle transit service involving over 30 vehicles to about 260,000 riders.

The Greene Turtle—Wait Staff Frederick, MD May 2019 - Aug 2021

- Provided customers with quality service while working in a fast-paced, high pressure environment.

Activities and Affiliations

Alpha Omega Epsilon, Women in Engineering Sorority—Sister Apr 2022 - Present
Maryland Club Soccer Team—Team Captain Sep 2021 - Present

Skills

Engineering: PTC Creo, AutoCAD Civil 3D, SolidWorks, Arduino, FlowMaster, Primavera P6, Microsoft Project
Other: Microsoft Word, Excel, PowerPoint, Project Professional

Sample Resume – Global Engineering Leadership

BEKELE (BECKY) WILSON

she/her • umdstudent@gmail.com • (301) 555-5555 • Small Town, MD 12345

EDUCATION

University of Maryland — **College Park, MD**
B.S., Aerospace Engineering — *GPA: 3.8* — *Expected May 2024*
Minor, Global Engineering Leadership

Leadership in Engineering, Business, and Technology, *Research Assistant* — **UAE, Qatar**
UMD Short-Term Study Abroad — *Jan. 2022*

- Researched development of projects and global leadership structure of Nakheel, Dubai RTA, the Louvre, Masdar City, and MSHEIRB Properties.
- Collaborated with Carnegie Melon, Qatar students for GOALS leadership symposium to develop and present global leadership model.

TECHNICAL PROJECT EXPERIENCE

Burkina Faso Water Project, *Team Member* — **College Park, MD**
Engineers Without Borders, UMD — *Aug. 2021 - Present*

- Collaborated with a group of students and professional engineers to design a viable water extraction system for a village in Burkina Faso.
- Aided in the design of the water storage tank and water distribution system.

Supersonic Wedge Model, *Independent Research and Design* — **College Park, MD**
Special Topics in Wind Tunnel Testing, UMD — *Sept. 2020 - Present*

- Researched, designed, and tested a wedge model for use in a Mach 2.2 wind tunnel.
- Analyzed shockwave patterns produced using a color schlieren system.

Satellite Trajectory Analysis, *Project Team Member* — **College Park, MD**
Space Navigation and Guidance, UMD — *Sept. 2020 - Dec. 2020*

- Used telescope observations to plot the trajectory of several satellites.
- Executed coordinate transformations using MATLAB algorithms to determine trajectories.

Bridge Design Team, *Project Team Co-Leader* — **College Park, MD**
Statics, UMD — *Jan. 2020 - May 2020*

- Led a team of 8 students to design, fabricate, and test a functional prototype of a wooden bridge designed to optimize the strength-to-weight ratio on a 3-week deadline.
- Placed 2nd out of 15 teams for the best strength-to-weight ratio.

COMPUTER SKILLS

Engineering: CREO, Inventor, EES, MATLAB, COMSOL, SolidWorks, FEA experience
Platforms: Windows10, iOS, Linux
Languages: Arabic (intermediate), Amharic (conversational)

AFFILIATIONS

Women in Engineering, *Engineering Tutor* — *2022 - Present*
Multiracial and Biracial Student Association, *Member* — *2022 - Present*

Sample Resume – Double Major/ Security Clearance/Study Abroad

Calvin Hernandez

www.linkedin.com/in/cdoublemajor • cdouble@terpmail.umd.edu
D.O.D. SECRET CLEARANCE
College Park, MD • (301)456-7890

EDUCATION

University of Maryland — College Park, MD
B.S., Aerospace Engineering — Expected May 2024
B.S., Mechanical Engineering — GPA: 3.57
Minor in Global Engineering Leadership

Universidad Carlos III — Madrid, Spain
Education Abroad Experience — March – July 2021

- Shadowed engineers at Airbus Military's Flight Test Center in Getafe, Spain while studying aerospace engineering courses (9 credits) in English

SKILLS

Catia V5 CAD	Abaqus FEA	MATLAB
Pro/Engineer CAD	ANSYS FEA	C++ Programming

RELATED EXPERIENCE

Simulation-Based System Design Laboratory — College Park, MD
Undergraduate Research Assistant — March – August 2022

- Created detailed 3-D components of virtual reality environments via CAD software programs for a DARPA research project
- Utilized Python and Minitab in order to evaluate effectiveness of 3-D components in the virtual environment

Battelle National Biodefense Institute — Frederick, MD
Engineering Intern — May 2021 – August 2021

- Edited building drawings, labeled room numbers on exhaust valves, and reviewed AutoCAD drawings and submittals for an autoclave move
- Helped orchestrate a preventative maintenance program for the Facility Operations group, minimizing facility downtime by 20%

Terps Racing (SAE) — College Park, MD
Baja SAE Vehicle Build; Project Team Leader — October 2020 – May 2020

- Modified previous year's Baja car for Birmingham, Alabama water event, converting it into amphibious ATV to traverse a 1-km W-shaped pond and road courses
- Placed 4th out of 49 universities in the main event, a four-hour endurance race

MEMBERSHIPS AND ACTIVITIES

- American Institute of Aeronautics & Astronautics, *Member* — September 2020 – Present
- Black Engineering Society, *Finance Chair* — September 2020 – Present
- UMD Intramural Soccer, *Member* — September 2020 – Present

Sample Resume – Double Major/ Computer Science

Robert Hwaiting (They/Them)

College Park, MD | 123-456-7890 | student@terpmail.umd.edu | github.com/hwaiting1234

EDUCATION

University of Maryland — College Park, MD
B.S., Mechanical Engineering and Computer Science, GPA: 3.55 — Expected May 2022
- Honors College, University Honors — Citation May 2020

SKILLS

Software: Java, C/C++, Assembly, Ruby, OCaml, Matlab, Eclipse, SWIFT, SQL, Linux/Unix
Engineering: Solidworks, Pro Engineer, Autodesk Inventor, Excel, Word, Outlook

TECHNICAL EXPERIENCE

NASA Goddard Space Flight Center — Greenbelt, MD
Software Development Intern — May 2021 – Aug. 2021
- Analyzed trends in the Mars Rover's mass spectrometer data through test-driven software development strategies in Java
- Executed test procedures and documented results to ensure software system requirements are met
- Implemented mergesort and quicksort algorithms for processing large data sets
- Improved data processing tools in a command-line UNIX environment

Sikorsky Aircraft — West Palm Beach, FL
Flight Test Instrumentation Intern — May 2019 – Aug. 2019
- Worked with a team of technicians to ensure accuracy of instrumentation measurements through pre-flight evaluations
- Troubleshot imprecise data readings through sensor and remote calibrations

Electronics Project, University of Maryland — College Park, MD
Individual Project — April 2019
- 3D printed and programmed a 3-axis robotic arm to pick up and throw a ball
- Designed the arm using Solidworks and programmed an Arduino to control a motor, using a joystick

LEADERSHIP

oSTEM, University of Maryland — College Park, MD
Chapter President — Aug. 2019 – Present
- Lead local chapter of the national LGBT-affirming engineering society
- Organized and facilitated panels of Out Professionals from NASA Goddard, Accenture, and Northrop Grumman
- Tripled charter membership from six to eighteen in less than one year as president

Terps Racing, University of Maryland — College Park, MD
Instrumentation Lead — Aug. 2018 – May 2019
- Coordinated a team of 8 students to instrument the chassis of a formula one race car
- Led communication across programmers and technicians to successfully install strain gauges, accelerometers, and pressure transducers under time and budget constraints

ACTIVITIES/AFFILIATIONS

Pi Tau Sigma**,** Mechanical Engineering Honor Society, *Member* — Aug. 2019 – Present
Mighty Sound of Maryland, Marching Band, *Musician* — May 2018 – Present

Sample Resume – Entry Level Software Engineering

1234 Main Street, NW
Washington, DC 12312

Caitlyn Barmaji

123-456-7890
CCompE@gmail.com

EDUCATION

University of Maryland — College Park, MD
B.S. Computer Engineering, GPA 3.3 — Expected May 2023
- ACES: Cybersecurity Honors Program — May 2021

SKILLS

C/C++, Ruby, Java, OCaml, Prolog, Verilog Assembly (Mips, y86), SQL Parse Firebase, MongoDB, Windows 7/8, iOS, Android, Ubuntu, Linux, Labview, PSpice, ProEngineer

TECHNICAL EXPERIENCE

Google Inc. — Seattle, WA
Software Development Intern — May – Aug. 2022
- Wrote automated Quality Analysis test scripts for study features on website using Selenium & Junit
- Refactored a large portion of website (3.5 million+ users), migrating logic from client to server, and creating customized views and paging mechanisms to display it
- Added quizzing to the Android application (100k+ downloads), using RESTful web services to generate content and creating customized views and paging mechanisms to display it
- Developed and integrated post-processing compression function reducing storage by 72%

NASA Goddard Space Flight Center — Greenbelt, MD
Software Development Intern — May – Aug. 2020, 2021
- Designed Java tools aimed toward remapping, shrinking, and filtering of sensor data collected from the Suomi NPP Satellite, to aid scientific community in analytics of weather patterns
- Analyzed effectiveness of Hadoop Distributed File System over current file structure, comparing metrics for common operations such as reading, writing, and copying of large data sets
- Presented products and findings at Poster Session to familiarize NASA colleagues and manager

HackMIT — Boston, MA
Team Member — May 2021
- Awarded Audience Choice out of 54 total projects for Android mobile application that dynamically sets an alarm for the user based on a specified appointment with a time and location

Payper – Web/Android App — College Park, MD
Individual Project — Aug. – Sep. 2020
- Converted digital currency into physical bills redeemable through scanning QR codes
- PennApps Winner of "Most Consumer-Friendly Bitcoin Hack"

ACTIVITIES

Terrapin Hackers, *President* — May 2020 – Present
Association for Women in Computing, *Active Member* — Sep. 2019 – Present
UMD Gamer's Orchestra, *Harpist* — Sep. 2019 – Present
Intramural Quidditch Club, *Active Member* — Sep. 2019 – Present
Society of Women Engineers, *Director of Outreach* — Apr. 2019 – Mar. 2020

Sample Resume – Student Athlete/ Biotechnology (Medical Devices)

ANA CAMARGO (They/Them)

College Park, MD 20740 • 123-456-7890 • bioedevice@terpmail.umd.edu

Education

University of Maryland — College Park, MD
B.S., Bioengineering GPA: 3.52 — Expected Dec. 2023

- *NCAA Division I Athlete: Women's Gymnastics*

Skills

CREO Parametric, Pro/Engineer, Solidworks, Autodesk Inventor, MATLAB, NX 8.5, C programming, FEA, CAD, Microsoft Office (Word, Excel, PowerPoint)
Security Clearance

Technical Experience

A.J. Drexel Plasma Institute — Camden, NJ
Research Assistant — May 2020 – Jan. 2021

- Managed bacterial cultures and executed projects modeling applications of The Floating Electrode-Dielectric Barrier Discharge (FE- DBD) plasma in microbiology sterilization
- Evaluated applications in hand sanitization, spore growth inhibition, and infection prevention post optical surgery

Respiratory Monitor Design — College Park, MD
Team Leader — Aug. 2019 – May 2020

- Led a team of five multidisciplinary undergraduate and graduate students to design and prototype an infant respiratory monitor for neonatal care units in developing nations
- Drafted circuit schematics of respiratory monitor by utilizing hand-drawings and CAD
- Conceptualized universal user interface and device's foot strap design

Air Force One Model — College Park, MD
Team Member — Jan. 2020

- Modeled a scaled replica of the Air Force One model of the Boeing 747-200 in a team of 6 engineers
- Individually drafted the vertical stabilizer and rudder in CREO Parametric 2.0
- Compiled a 20-page design report with 2D drawings and bill of materials, and a presentation with flight simulation

Human Movement Risk Assessment — College Park, MD
Team Member — Sep. 2019 – Dec. 2019

- Analyzed tendon and muscle data to determine the risk of injury to the ACL, patellar tendon, and quadriceps muscles
- Individually created Force Body diagrams to demonstrate the direction and magnitude of musculoskeletal forces

Leadership Experience

University of Maryland NCAA Division I Student-Athlete — College Park, MD
Women's Gymnastics, Team Captain — August 2019 – Present

- Lead a team of 20 student athletes in daily workouts and weekly competitions while managing a full-time student course load
- Host 1-on-1 meetings with new teammates and fundraise for 3 non-profits per year

Sample Resume - Career Changer

Janel Walker

College Park, MD 20742
301.555.5000 ● student@umd.edu

CIVIL ENGINEER with computer-aided design (CAD), design training and a background in business. Firsthand experience applying engineering principles to develop cost-effective solutions to design problems.

KNOWLEDGE, SKILLS, AND TRAINING

- AutoCAD 3D Modeling
- MicroStation
- MATLAB
- ArcGIS
- Structural Analysis
- Engineering Materials
- Geometrics and GIS
- Geotechnical Engineering
- Project Management
- Fluent Spanish & French

EDUCATION

University of Maryland — College Park, MD
Bachelor of Science, Civil Engineering — Expected Dec. 2023
Major GPA: 3.2, Cumulative GPA: 2.9
Bachelor of Science, International Business — May 2018
GPA: 3.8

TECHNICAL EXPERIENCE

Engineers Without Borders — Quito, Ecuador
Project Leader — May 2019 - Present

- Coordinated a team of eighteen volunteers to analyze soil data during the four-week construction phase, successfully installing 39 household latrines

U.S. Department of Energy Solar Decathlon — College Park, MD
UMD Team Construction Group Member — Jan. – Oct. 2019

- Solicited over $50,000 in donations of free and reduced-cost building materials from company representatives at the 2011 International Builder's Show
- Performed friction testing on footings to analyze lateral load capacity; conducted compression testing on sample concrete cylinders to determine breaking strengths
- Received People's Choice Award and placed 8th overall out of fifty teams

Anti-Icing Project — College Park, MD
Project Team Member — Aug. – Dec. 2019

- Designed, built, and tested a functional prototype of an autonomous bridge de-icing system
- Presented final design to panel of faculty and professional engineers

Hilton Worldwide — New York, NY
International Sales Representative — Jun. 2018 – Aug. 2019

- Responded to sales inquiries, initiated new sales, and solicited potential clients
- Negotiated multi-million dollar contract with international professional association

MEMBERSHIPS AND ACTIVITIES

Society of Hispanic Professional Engineers (SHPE), *Active Member* — Jan 2020 – Present
American Society of Civil Engineers (ASCE), *Secretary* — Sept. 2018 – May 2019

Sample Resume – Alum Seeking Next Job

LUKE BATTLE

Washington, DC 20001
(202) 987-6543 • lbatalum@fake.umd.edu

CONSULTANT | PROJECT MANAGER
Product Design | Mechanical Engineering | Research & Development | Security Clearance

Entrepreneur and product developer with a technical background and two years of consulting experience. Demonstrated expertise in business operations, quality control, budget analysis management, and negotiations and contract development. **Strengths include:**

- Quality Management
- Bid Development & Contract Administration
- Staff Leadership & Resource Management
- Product Design Engineering
- MATLAB
- C/C++ Based Arduino
- ANSYS
- SolidWorks
- Autodesk Inventor
- AutoCAD
- Microsoft Excel (Macros)
- SQL queries

EDUCATION

University of Maryland — **College Park, MD**
BS, Mechanical Engineering — May 2023

- Minor in Technology Entrepreneurship; Hinman CEOs Entrepreneurship Program
- Department of Engineering Chairman's Award

PROFESSIONAL EXPERIENCE

Big Government Consulting — **Washington, DC**
Senior Consultant | Engineering Manager — January 2021 - Present

- Manage large scale projects including IT upgrades, HVAC installations, office renovations, and facilities operations
- Gather customer requirements, write statements of work, budget project funds, and drive schedule
- Review Architecture and Engineering design drawings for accuracy, feasibility, and code compliance
- Ensured submitted plans complied with ASHRAE, IBC, OSHA, and client-developed standards
- Presented three final project reports to senior leads and successfully gained closed projects

Private Tech Consulting Corporation — **Reston, VA**
Associate Consultant — August 2019 - January 2021

- Utilized agile development methodology to design and deliver custom business process management applications in a fast-paced environment
- Used a Java based framework and MySQL database language to aggregate and analyze business data
- Recognized by department for role in ensuring that the application was pushed to production on time

US Government, Facilities Engineering — **Washington, DC**
Project Manager Intern — May - August, 2017 & 2018

- Acted as point of contact for all facilities planning and ad hoc needs of executive level offices
- Oversaw the implementation of a recovery effort from an unexpected facilities crisis within 12-hour window
- Reviewed design drawings, drafted two Statements of Work, and acted as point of contact for contractors

University of Maryland, Micro-Robotics Laboratory — **College Park, MD**
Product Developer — January 2017 - May 2017

- Created fitness tracking workout gloves that communicate exercise data via Bluetooth Low Energy
- Developed a wiring schematic, designed a Printed Circuit Board, and constructed PCB in laboratory

Sample Resume – USAJobs Resume Builder (Federal Position)

Ms. Teresa M. Montgomery
2345 Gamely Rd.
Wilmington, DE 19810 United States
Mobile: (202) 456-7890 - Ext: 123
Email: tmontstu@students.edu

Availability:	**Job Type:** Permanent, Temporary, Summer, Presidential Management Fellows, Recent Graduates, Intermittent, Internships, Telework
Work Schedule:	Full-Time
Desired locations:	United States - Washington DC; College Park, MD; Laurel, MD; Atlanta, GA
Work Experience:	University of Maryland Multiscale Measurements Laboratory Engineering Building 2 College Park, MD 20742 United States **05/2021 – Present, Hours Per Week:** 15 **Undergraduate Research Fellow** **Duties, Accomplishments and Related Skills:** Create multifunctional sandwich composites inspired by Palmetto Wood Design composites with a charge-holding foam core to act as batteries
Education:	**University of Maryland,** College Park, MD United States Some College Coursework Completed **GPA:** 3.74 of a maximum 4.0 **Credits Earned:** 128 Semester hours **Major:** Mechanical Engineering **Minor:** Project Management **Relevant Coursework, Licenses and Certifications:** Intro to MATLAB, Programming for Mechanical Engineering, Thermodynamics, Materials Science I
Affiliations:	Alpha Omega Epsilon Professional Engineering Sorority - Member
Additional Information:	LEADERSHIP: Department of Resident Life, University of Maryland Math Coach, September 2019 – Present SKILLS & CERTIFICATIONS: Programming in MATLAB, C++ AutoCAD, PSpice, Microsoft Excel FE/ EIT Certification, August 2021 HONORS & AWARDS: L-3 Communications Scholarship, received August 2019

Sample Resume – Military Experience

Eric Tenley

Hyattsville, MD 20783 | +1.703.555.1212 | student@terpmail.umd.edu | www.linkedin.com/in/UMDstudent

EDUCATION

University of Maryland — College Park, MD
Bachelor of Science: Mechanical Engineering, GPA: 3.05 — Expected Graduation: May 2023

Munich University of Applied Sciences — Munich, Germany
Study Abroad Semester: Automotive Engineering, GPA: 3.2 — Jan - July 2022
International Engineering Certificate — July 2022

Northern Virginia Community College — Alexandria, VA
Associates of Science: Engineering Sciences, GPA: 3.83 — Aug 2017 - May 2018

TECHNICAL EXPERIENCE

Colliers International — Washington, DC
Assistant Project Manager — May 2021 - Aug 2022

- Examined building schematics and generated technical documentation of existing components
- Composed testing procedures for commercial HVAC systems
- Conducted building envelope testing and verified results were according to LEED standards

University of Maryland, Mechatronics Project — College Park, MD
Individual Project — Aug - Dec 2022

- Conceptualized and developed a robotics system which fired a projectile based on user input
- Successfully wrote and implemented Arduino and Processing code to communicate with system

Munich MotorSport — Munich, Germany
Aerodynamics Design Team Member — Jan - Aug 2022

- Examined the aerodynamics of vehicle components using ANSYS
- Simulated proposed improvements of new design using Finite Element Analysis (FEA)

Munich University of Applied Sciences, Platooning Aerodynamics Team — Munich, Germany
Team Member — Feb - July 2022

- Analyzed the pressure experienced between vehicles at varying lengths using ANSYS
- Proved the potential fuel savings vehicles experience while platooning

Airgility — College Park, MD
CAD and Assembly Team Member — May - Sep 2021

- Fabricated autonomous robotic drone systems used to deliver medical devices and supplies
- Collaborated in designing the mounting brackets for propeller motors using CAD software (SolidWorks)
- Assembled the 3D CAD models and finalized the designs before 3D printing occurred

MILITARY EXPERIENCE

United States Air Force — Sumter, SC
Journeyman Meteorologist — Jan 2013 - Jan 2017

- Analyzed raw weather data from surface observations, satellites, radar, computer models and climatological information to develop an informed weather forecast with direct mission impact
- Verbally communicated weather data to officers in charge and fellow meteorologists to enable strategic decision making to ensure equipment and personnel safety
- Provided forecasts ensuring completion of over 2000 flight missions with a 98% error-free success rate

SKILLS

Technical: Creo, AutoCAD, SolidWorks, ANSYS, MATLAB, C++, Microsoft Office, Arduino, Processing

Language: German (Intermediate, Goethe Institute: B2)

Sample Resume – First Year Master's Student

Dana Pillai (He/Him)

College Park, MD 20740 | (301)555-5555 | terpstudent@umd.edu

EDUCATION

University of Maryland — College Park, MD
MS, Telecommunications Engineering — Expected May 2023

- Relevant Coursework: Networking Protocols, Wireless OFDM Systems, Decision Modeling, Advanced Wireless Communications Networks, AWS/PCS System Implementation

Visveswaraya Technological University — Bangalore, India
BE, Telecommunication and Electronics — May 2020

- First Class Honors, top 5% of class

TECHNICAL SKILLS

Programming: C++, SQL, HTML, XML, Java, MATLAB
Protocols: TCP-IP, RIPv1, RIPv2, EIGRP, OSPF, BGP
Tools: SPSS Tool, WireShark, RANPlan

TECHNICAL EXPERIENCE

WISPY, InSSIDer, WI-FI Scanner — College Park, MD
Independent Project — September 2019

- Inspected WLAN of University of Maryland and personal home access points, as well as the surrounding networks.
- Troubleshot the access points for higher dBm, playing with frequency spectrum and channels using the tool Channel, RSSI, and "Time Last Seen".

Mobile Communications Ltd. — Bangalore, India
Technical Engineer — July 2017 – July 2019

- Collaborated with marketing department to redesign coverage-extension sites to enhance company competitiveness.
- Developed network capacity growth plans and designed 24 new sites to offload capacities from existing sites.
- Led design of 65 coverage-extension sites and optimization of 120 on-air sites.

WORK EXPERIENCE

McKeldin Library — College Park, MD
IT Office Assistant — August 2019 – Present

- Developed a software tool "BSR – Advance" for database maintenance.
- Troubleshoot technical issues.
- Assist faculty, staff and students with answering questions and solving technical problems.

ACTIVITIES AND AFFILIATIONS

Institute of Electrical and Electronics Engineers — Bangalore, India
Event Organizer/Coordinator — September 2015 – May 2018

- Increased attendance at IEEE tech fest and cultural festival by 15% over two years.

Sample Resume – Second Year M.S. Chemical Engineering

ROHIT T. MOHAMMAD

College Park, MD 20740
rtm1234@umd.edu
(123)456-7890
in/rohitchemicalengr

EDUCATION

College Park, MD

UNIVERSITY OF MARYLAND — GPA: 3.7 — Expected May 2023
M.E. Chemical Engineering

UNIVERSITY OF VIRGINIA — Charlottesville, VA
B.S. Chemical Engineering, Business Minor — GPA: 3.8 — May 2018

- Magna cum Laude

SKILLS AND CERTIFICATIONS

Software: MATLAB, MathCAD, ASPEN, ANSYS, Microsoft Office (Word, Excel, Access and PowerPoint)
Laboratory: Gas Chromatography, organic synthesis & purification, HPLC, atomic absorption

RELEVANT EXPERIENCE

ABC DEVELOPMENT COMPANY
Energy Sector Analyst — July 2016 - August 2018
Verification of Enhanced Oil Recovery Audits — Toronto, Canada

- Assessed whether the quantity of offsets generated was characterized accurately by evaluating calculation methodologies, re-performing direct and indirect emissions calculations, and analyzing P&IDs of the injection and production facility.
- Identified compressor seals and CO2 dissolved in stored crude as the missing emission sources that accounted for 22% of the total emissions from the site.

Greenhouse Gas Emission and Sinks Inventory, Oil and Gas Sector — Washington, DC

- Established the uncertainties associated with each emission source using @RISK, a Monte Carlo simulator capable of performing risk analysis in Excel spreadsheets.
- Improved the U.S. Inventory by researching and quantifying the emissions reductions from technologies and processes reported by Natural Gas STAR Partners to enhance the assumptions and the resulting emissions estimates.
- Recommended statistical methods to validate the emissions profile of a facility and estimated expected ranges for data elements collected through reporting.

Measurement Study for Indian Natural Gas Industry — Bhopal, India

- Designed Excel-based tools to aggregate emissions data into a comprehensive emissions inventory and perform economic analysis of mitigation options for the major emission sources; analysis revealed savings of $3.75 million.
- Shared results of the measurement study and mitigation options to EPA client in a technical presentation.

Energy Performance Benchmarking and Conservation Potential — Washington, DC

- Established a baseline energy consumption profile for equipment used in transmission processing of oil and gas by researching Title V permits, vendor documents, and by using engineering calculations.
- Developed an estimate of potential energy savings by creating a database of conservation methods and using a proprietary calculation platform.

Climate Business Opportunities Washington, DC

- Identified key investment opportunities to target as climate change and sustainability become increasingly important in developing countries.
- Inventoried and projected the growth of emissions from the oil and gas industry in developing countries based on key market metrics.
- Estimated reduction potential for emissions by evaluating the implementation of mitigation technologies, including the potential for miniaturized gas-to-liquid technologies.
- Conducted a rigorous search of potential companies within the target regions that met the client's stringent investment criteria.

ABC ENERGY PARTNERS Bethesda, MD
Project Coordinator June 2014 - June 2016

- Delivered technical presentations on emission mitigation technologies and practices and provided logistical support for numerous technology transfer workshops.
- Researched and organized data on process units at refineries
- Calculated the equivalent distillation capacity of each refinery in the U.S. that took into consideration the complexity of process units at each refinery.

RESEARCH EXPERIENCE

PETROLEUM INSTITUTE Abu Dhabi, U.A.E
Research Assistant June - August 2013

- Established a theoretical formalism linking thermal and visco-elastic properties of crude oil used in reservoir simulations and enhanced oil recovery methods.
- Published results of research:
  - Ayaz, A.; **Mohammad, R.T**., Temperature dependent thermodynamic and thermo-elastic properties of crude oil. Journal of Engineering Topics 2012, vol. 5, pp 123-145.
  - **Mohammad, R.T**., Perez, P., Visco-elastic and dielectric relaxation studies of crude oil. Petroleum Science and Technology 2013, vol.21, pp 234-344.

AFFILIATIONS

American Institute of Chemical Engineers, Events Committee Member September 2012 - Present
Association of Energy Engineers, Member May 2014 - Present
Tau Beta Pi Honor Society, Member September 2013 - May 2014

Sample Resume – Second MS/Spring Career Fair

Aarav Kumbhar

College Park, MD | 123.456.7910 | student@terpmail.umd.edu | in/UMDstudent

Education

M.S. Human-Computer Interaction, University of Maryland, *College Park, MD* **Expected May 2024**
M.S. Mathematics, Birla Institute of Technology & Science, *India* **July 2020**
B.E. Electronics & Communication, Birla Institute of Technology & Science, *India* **July 2020**

Skills

Web Development: HTML5, CSS, JavaScript, PHP, MySQL, NodeJS
Android Development: Architecture Patterns like MVC and MVVM, UI Design, Domain Analysis, SDK, Public API Design, Essential Libraries like Glide, OkHttp, RxJava, Dagger, Retrofit
UX/UI Design: Prototyping in Sketch and Affinity Designer, Animation in Principle
Project Management: JIRA, Confluence, Trello
Version Control: Git, SVN

Professional Experience

Software Developer, IBM MaaS360, *Bengaluru, India* **August 2020 – July 2022**

- Developed remote management, data reporting, and enterprise security features for Android devices
- Built an AI-powered chatbot to improve customer support capabilities
- Enhanced OEM Device Management capabilities by adding support for special APIs provided by Panasonic, Zebra, and Kyocera to offer administrators more control over their devices
- Advocated in-house design; created mockups for new features leading to 30% reduction in design time

Android Development Intern, Hullo Inc., *Mumbai, India* **August 2018 – May 2020**

- Designed and developed a voice messaging application and embeddable SDK for Android
- Incorporated domain analysis, abstraction patterns, and dependency injection into team workflow to accelerate development of new features
- Engineered multimedia, persistence, and networking architecture to enable robust voice messaging
- Implemented Material Design user-interfaces with complex components and animations to create user-friendly and responsive experience

Web Developer, BITS Pilani, *Hyderabad, India* **August 2016 – May 2018**

- Rewrote the Dining Mess Registration web-service, reducing registration time by 80% (180 seconds to 36 seconds on average) and greatly increasing concurrent registration performance
- Automated the manual process of Certificate Generation, reducing the time to issue certificates (2 days to a few minutes) and freeing up department resources
- Created secure online Voting Portal to provide an efficient and accessible alternative to traditional ballot-box style voting during the Student Union Elections

Personal Projects

Sublime Stills **February 2017 - August 2017**

- Conceived and published an immersive wallpaper discovery app for Android to a 4.4-star user rating

Cadence Music Player **May 2016 - August 2016**

- Prototyped music player concept in which user-interface color changes based on the currently playing audio

The Daily Bitsian **May 2016 - August 2016**

- Co-founded an online magazine; provided creative direction for website design and reading experience; created content release schedule; coordinated between design and writing teams

Sample Resume – Ph.D. Electrical/Computer/International Student

92 Elm St.
Apt # 6
Greenbelt, MD 20770

Farva Ahadi

301.555.1234
student@umd.edu
in/farvahadi

Education

Ph.D. in Electrical and Computer Engineering, Communication, GPA 3.91 — Expected: 5/2024
University of Maryland, College Park, MD

M.S. in Electrical Engineering, Control Systems, GPA 3.81 — 9/2018
B.S. in Electrical Engineering, GPA 3.78 — 5/2016
Sharif University of Technology, Tehran, Iran

Computer Skills

Platforms: Unix, Linux, DOS, Windows XP/2000/NT, and VAX/VMS
Languages: C/C++, Java, MATLAB, Verilog, Assembly and C for Texas Instruments DSP processors, Assembly and C for embedded systems and Intel x86 Assembly
Software: Network Simulator (**NS2**) GloMoSim, CPLEX, and Qualnet

Experience

Graduate Research Assistant, ECE Department, College Park, MD — 8/2020 - Present

- Conduct research on dynamical behavior of TCP traffic in IP networks, and developed ***award winning*** CDMA Aggregate Perturbation **(CAP)** technology for Distributed Denial of Service (DDoS) Internet attacks (***C/C++, MATLAB, TCL and NS2 code***).
- Lead the design team of a library of signal processing blocks in Verilog. Designed and implemented ***Dataflow/RTL*** and ***gate level*** realization DSP blocks including FIR and IIR filters.
- Implement both the transmitter and receiver of a V22bis modem according to the ITU-T recommendations based on the Texas Instruments TMS320C30 DSPs (***C and TI Assembly Code***).

Control System Designer, MKK Control Systems (founder), Tehran, Iran — 8/2018 - 7/2020

- Designed front-end of an embedded system of an autonomous process controller, which is currently being mass produced and has been installed in more than 100 plants.

Control System Design Chief Engineer, Fan-Niroo Company, Tehran, Iran — 8/2018 - 8/2020

- Designed and implemented a control, emergency shutdown and process visualization system.
- Oversaw extensive hardware design of digital and analog control boards and implementation of programming in C/C++ and X86 Assembly.

Awards and Leadership

- ***First Place Award of Business Plan Competition,*** University of Maryland, 2020, for **MacroPhage Networks** (With Prof. M. Shayman and Dr. M. Alasti).

- ***Received $50,000 University Technology Development Fund (UTDF),*** Maryland Technology Development Corporation (TEDCO), 12/2019. (With Prof. M. Shayman).

- ***President,*** University of Maryland Electrical and Computer Engineering Graduate Student Association (ECEGSA), 2019 -2020.

U.S. Patent and Invention Disclosure

- ***Method for Quantifying Responsiveness of Flow Aggregates to Packet Drops in A Communication Network*** (US pending patent number 123456789).

- ***Using Direct Sequence Spread Spectrum to Determine Responsiveness of a TCP Aggregate to Packet Drops,*** reported to the Office of Technology Commercialization, University of Maryland, 4/2020, Ref. No. IS-1111-000.

Selected Publications

M. Shayman, R. Gahremanpour, R. Skoog, N. Jasinski and **Farva Ahadi,** "*Network Management and Control Mechanisms to Prevent Maliciously Induced Network Stability*," Proc. 8th IEEE/IFIP Network Operations and Management Symposium (NOMS-2021).

Farva Ahadi, K. Gallichio, and M. Shayman, "*Mitigation of Denial of Service Attacks in the Internet*," Proc. 41st IEEE Conference on Decision and Control (CDC-2018).

Research Proposals /Grants

"Routing and Topology Design of Hierarchical Sensor Networks" With Prof. Mark Shayman, ECE Department of the University of Maryland, Submitted to NSF Sensornet program 1/2020.

"CDMA-Based Mitigation of Distributed Denial of Service Attacks" With Prof. Mark Shayman, ECE Department of the University of Maryland, Submitted to NSF NetS program 4/2019.

Professional Activities/Affiliations

- Paper Reviewer, INFOCOM 2020
- Paper Reviewer, International Conference on Communication (ICC) 2019 and 2021
- Member, Scientific Research Society (Sigma Xi)
- Student Member, IEEE

Relevant Graduate Courses

University of Maryland: Random Processes in Communications and Control, Multi-User Communication, Wireless Communication, Digital Communications, Detection and Estimation Theory, Digital Computer Design, CAD of Digital Systems, Advanced Digital System Design

Sharif University of Technology: Switching Systems, Information Theory, Data Communication Networks, Object Oriented Programming, Neural Networks, Fuzzy Systems and Sets, Adaptive Control, Multi Variable Control, Optimal Control, Robust Control, Robotic Manipulators, Nonlinear and Digital Control, Discrete Signal Processing, Operation Research, Abstract Algebra

Additional Information

In the Media: "UM Business Plan Competition Could Launch Next Google," 5/3/2020. Received favorable comments about MacroPhage Networks and the CAP technology. Covered by PR Newswire, CBS MarketWatch, NBC, National Hispanic Corporate Council, and The Gazette.

Sample Resume – Ph.D. Bioengineering

DENISE S. McGRAW

Elkridge, MD 21075 dsmcgraw@umd.edu
301-555-7890 in/dsmcgraw

EDUCATION

Ph.D., Bioengineering Anticipated May 2023
University of Maryland, College Park, MD
- Advanced to Candidacy, Nov. 2020
- GPA 4.0/4.0

B.S., Chemical Engineering May 2018
University of Maryland, College Park, MD
- Summa Cum Laude, with Engineering Honors
- GPA 4.0/4.0

RESEARCH EXPERIENCE

UMD Doctoral Dissertation Research Baltimore, MD
Researcher Jun. 2018 - Present
- Investigate poly (amido amine) dendrimers as oral drug carriers of anticancer therapeutics.
- Assess cytotoxicity, cellular uptake and transepithelial permeability of dendrimers and dendrimer-drug conjugates using *in vitro* Caco-2 cell model
- Independently determined impact of PEGylation of dendrimers on dendrimer transport, uptake and interactions with epithelial tight junctions.
- Co-wrote book chapter: R. Kolhatkar, **D. McGraw**, and H. Ghandehari, "Functionalized Dendrimers as Nanoscale Drug Carriers," in Multifunctional Pharmaceutical Nanocarriers, V. Torchilin (ed), Springer, 2012, pp. 201-232.
- Presented research poster at conference: **D. McGraw**, R. Kolhatkar and H. Ghandehari. "PEGylation of Anionic PAMAM Dendrimers: Implications for Oral Delivery." Poster presentation, 35th Annual Meeting of the Controlled Release Society, New York, NY, July 12-16, 2009.

UMD Undergraduate Research Project College Park, MD
Intern Aug. 2013 - Apr. 2015
- Completed a competitive, NSF-funded, Research Experience for Undergraduates (REU) summer internship program and then continued research project as an undergraduate research fellow.
- Determined the surface structure and chemistry of DNA-GaAs biochips using Grazing Incidence X-ray Scattering, X-ray Photoelectron Spectroscopy and Atomic Force Microscopy.
- Published manuscript in IEEE: M. Al-Sheikhly, **D. McGraw**, et al. "Radiation Induced Failure Mechanisms of GaAs Based Biochips," *IEEE Transactions on Device and Materials Reliability*. Vol. 4, No. 2., June 2005.

McGraw p.1/2

National Institute of Standards and Technology Gaithersburg, MD
Summer Undergraduate Research Fellowship (SURF) Jun.-Aug. 2013

- Developed an automated method to convert two-dimensional HIV protease inhibitor chemical structures to three-dimensional animations showcasing inhibitor interactions with protease active site using Pymol software.
- Created 300 visualizations of HIV Protease-Inhibitor interactions to supplement HIV research database (HIVSDB).
- Presented results to scientists and peers at SURF Symposium.

WORK EXPERIENCE

Graduate Teaching Assistant Sep. 2019 - May 2020
University of Maryland, College Park, MD

- Facilitated laboratory exercises for 40 students in Freshman Bioengineering Laboratory and delivered weekly lectures on engineering and biology topics.
- Graded 50 homework assignments weekly for Computational Methods in Bioengineering course and answered student questions concerning C and Matlab programming languages.

Undergraduate Teaching Fellow Jan. - May 2016
University of Maryland, College Park, MD

- Selected as a Women in Engineering Undergraduate Teaching Fellow.
- Developed lesson plans for and led a 1.5 hour recitation each week for 30 students in "Mass and Heat Transfer".

Clark School Ambassador Jan. - Aug. 2015
University of Maryland, College Park, MD

- Served as a student representative for the College of Engineering, giving presentations and tours to prospective students and parents, visiting local high schools and performing other recruitment duties.
- Developed curriculum and activities for "Discovering Engineering," a week-long engineering summer camp for middle school students.

LEADERSHIP AND EXTRACURRICULAR ACTIVITIES

- Tau Beta Pi, Recording Secretary (2013-2014) and Scholarship Chair (2015)
- Chemical Engineering Chair Search Committee, Undergraduate Representative (2012)
- Gemstone Coordinator Search Committee, Student Representative (2012)

AWARDS

- National Science Foundation Graduate Research Fellowship, 2018 – 2019.
- A. James Clark School of Engineering Dean's Award, May 2015.
- Barry M. Goldwater Scholarship, 2012 – 2013.

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