

Zachary Barry

(443) 981-9673 | Harford County, MD | barryzachary2@gmail.com | linkedin.com/in/zacharybarry2
github.com/ZacharyBarry

Education

University of Maryland, Baltimore County (UMBC)

Graduation: May 2027

- BS in Computer Science
- **Coursework:** Data Structures, Computer Architecture, Assembly Language, Linear Algebra, Operating Systems, Machine Learning, Analysis of Algorithms

Experience

AI Engineer, Part-Time, Davis Unlimited Information Technologies – Baltimore, MD

September 2026 – Present

- Selected to lead two initiatives launching this fall: productionizing the AI document-analysis pipeline built during the summer internship for company-wide deployment on AWS, and building a new site for a corporate client.
- Share AWS and GitHub access with one other developer, reviewing pull requests and supporting production deployments across the company's live sites.
- Migrate components of a production Next.js e-commerce site on AWS from client-side to server-side rendering (SSR) for faster load times and better SEO.
- Audit the codebase page-by-page to remove dead code, cutting its size by 10%, and resolve TypeScript/JavaScript bugs and critical security vulnerabilities.
- Write a Playwright end-to-end test suite and rework the site's Tailwind CSS styling to support these ongoing improvements.
- Deliver a full rewrite and modern redesign of a second company website, which has since moved into active feature development.

Artificial Intelligence Engineering Intern, Davis Unlimited Information Technologies – Baltimore, MD

June 2026 – July 2026

- Built a full-stack web application supporting CMMC compliance workflows for DoD contractors, developing a Next.js/Tailwind CSS frontend that communicates with a self-built Python Flask backend over REST APIs.
- Administered the team's AWS infrastructure: provisioned and administered an EC2 instance, containerized services with Docker, and deployed a locally-hosted Gemma LLM via Ollama that fed into the team's broader processing pipeline.
- Built a GitLab CI/CD pipeline with GitLab Runner that ran the team's pytest suite on every commit and auto-deployed to the EC2 environment once tests passed, saving hours of manual testing and deployment work.
- Delivered every project milestone as part of a four-person cross-functional team that included DoD veterans and cybersecurity professionals; represented the team at the AWS Summit in Washington, D.C.

Projects

MealSpark (AI Recipe Generator) – HackUMBC, Fall 2025

 mealspark.tech  GitHub

- Built a full-stack AI recipe generator (HTML, JavaScript, Tailwind CSS) from scratch in 48 hours, then kept shipping improvements and deployed it to a live custom domain.
- Integrated the Google Gemini API to read pantry images and dietary constraints, parsing the returned JSON into recipes rendered in real time.

Custom Unix Shell

C, Linux

- Built a Unix-like command-line interpreter in C, implementing the fork, execvp, and wait system calls for process creation, execution, and termination.
- Wrote the input-parsing layer to support multi-argument commands, background execution, and error handling for invalid input.

Technical Skills

Languages: C++, C, Java, Python, JavaScript, HTML, CSS, Lua

Cloud & DevOps: AWS (EC2), Docker, GitLab CI/CD, Linux, REST APIs

Frameworks & Tools: Next.js, React, Flask, Tailwind CSS, Playwright, Git, GitHub, PyCharm, VS Code

Extracurriculars & Leadership

Member, American Institute of Aeronautics and Astronautics (AIAA) – Assembled, soldered, and programmed a functional quadcopter drone.

Fall 2025