

Shiqi (Cathy) Wu

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EDUCATION

University of Maryland, College Park

College Park, MD

Bachelor of Science, Computer Science and Mathematics; GPA: 3.92/4.00

May 2027

- **Relevant Courses:** Advanced Data Structures, Design and Analysis of Computer Algorithms, Object Oriented Programming I-II, Computer Systems, Organization of Programming Languages, Machine Learning, Data Science, Discrete Math, Probability and Statistics, Linear Algebra, Differential Equations, Calculus I-III

EXPERIENCE

General Dynamics Information Technology

Herndon, VA

Software Development Engineer Intern

Jun. 2025

KPMG

McLean, VA

Data & Analytics Intern

Dec. 2023 - Feb. 2024

- Led a team of 4 to analyze health equity data and manage the full data lifecycle, from data collection and preprocessing to analysis and visualization, enabling informed decision-making and data storytelling
- Cleaned and standardized 1,000+ records using SQL and Python (Pandas, NumPy, Matplotlib, Seaborn)
- Conducted exploratory data analysis and feature engineering to identify key patterns and disparities
- Built interactive Power BI dashboards to visualize trends and support data-driven decisions

Children's National Hospital

College Park, MD

Software Engineer Intern

Feb. 2025 - May 2025

- Built a full-stack web and ML application to predict Autism Spectrum Disorder from fMRI scans, with results displayed in both 2D and 3D visualizations using Plotly and NiiVue
- Developed the frontend using Vite and React, with secure SSO authentication and responsive design
- Implemented FastAPI endpoints for file upload, using Supabase to manage data and user information
- Designed an fMRI preprocessing pipeline and integrated a GNN-based classifier using PyTorch and PyG

Department of Computer Science & Mathematics, University of Maryland

College Park, MD

Teaching Assistant, CMSC330 (Organization of Programming Languages)

Jan. 2025 - Present

- Lead a weekly discussion for 36 students in OCaml and Rust, supporting 900+ students through office hours, review sessions, and collaboration with 40 TAs
- Develop and test 7 OCaml/Rust projects, writing 50+ unit tests and managing releases with GitHub
- Grade exams and projects for 900+ students by customizing Docker containers from the Gradescope base image, automating and standardizing grading workflows

Course Facilitator, CMSC3890 (The Coding Interview)

May 2025 - Present

- Facilitate a student-initiated course on mastering technical interviews, creating lecture and teaching material on core data structures, algorithms, and behavioral strategies

Mathematics Tutor, MATH241 (Calculus III)

May 2025 - Present

- Tutor students in multivariable calculus, including partial derivatives, multiple integrals, and vector calculus

Teaching Assistant, CMSC132 (Object Oriented Programming II)

Aug. 2024 - Jan. 2025

- Collaborated with 25 TAs to grade projects, exams, and worksheets, providing detailed feedback on code style
- Held weekly office hours, assisting 450+ students with Java, data structures and algorithms, and debugging

PROJECTS

Personal Wishlist 🐙 🐙 | *MongoDB, Express.js, React, Node.js*

Aug. 2024

- Built a full stack web application using a dynamic frontend interface and implemented RESTful APIs
- Managed backend data with MongoDB, and thoroughly tested efficient database operations using Postman

TECHNICAL SKILLS

Languages: Java, Python, C, JavaScript, TypeScript, OCaml, Rust, SQL, R, HTML/CSS, AVR Assembly, LaTeX

Technologies: React, React Native, Node.js, Express.js, Flask, Pandas, Power BI, MongoDB, AWS, Git/GitHub, MATLAB