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 2026*

- **Relevant Courses:** Data Structures & Algorithms, Organization of Programming Languages, Computer Systems, Object Oriented Programming, Discrete Mathematics, Applied Probability and Statistics, Linear Algebra, Calculus I-III
- **Honors/Awards:** Computer Science Departmental Honors, Design Cultures & Creativity Honors College, Dean's List
- **Activities:** App Development Club, Association for Women in Computing, Break Through Tech, Girls Who Code

EXPERIENCE

Student Software Engineer — **Sep. 2024 - Present**

Warriors Legacy Care Project - App Development Club — *College Park, MD*

- Develop a mobile application using React Native and JavaScript for a user-centered frontend design, with a Flask backend, to support the healthcare needs of 100+ veterans
- Utilize PostgreSQL for efficient data management and querying, ensuring secure and reliable access to user records, medical appointments, and healthcare provider information
- Design features such as user registration with ID.me verification, flexible scheduling, and a provider map
- Collaborate with a 9-member team using Agile methodology to deploy the product on AWS, managing code versions and contributions through Git and GitHub

Teaching Assistant - Object-Oriented Programming II — **Aug. 2024 - Present**

UMD Department of Computer Science — *College Park, MD*

- Collaborate with 25 teaching assistants to grade projects, exams, and worksheets, providing detailed feedback
- Hold weekly office hours, assisting 340+ students with concepts in Java, data structures, and algorithms
- Guide students in debugging projects and creating effective test cases to improve code coverage and style
- Review and give suggestions on draft course materials to improve clarity and effectiveness

Data & Analytics Intern — **Dec. 2023 - Feb. 2024**

KPMG — *McLean, VA*

- Utilized Power BI for data cleaning, querying, and visualization, enhancing data accuracy and accessibility
- Analyzed and manipulated large datasets containing 1,000+ records from Excel to extract valuable findings
- Led a team of 4 to address health equity issues in the Washington metropolitan area and present data-driven solutions to stakeholders

PROJECTS

Personal Wishlist 🔗 ⬡ | *MongoDB, Express.js, React, Node.js* — **Aug. 2024**

- Built a full-stack web application from scratch using the MERN stack to express a personal wishlist
- Created a dynamic front-end and responsive UI features to enhance accessibility
- Managed back-end data with MongoDB, and thoroughly tested efficient database operations using Postman
- Developed RESTful APIs and deployed the application on Render to provide a functional live environment

Shell Implementation | *C, Linux* — **Jul. 2024**

- Developed a custom shell in C that parses and executes commands with features similar to Unix shells
- Implemented logical operators, input/output redirection, pipes, and subshells for enhanced functionality
- Managed parent and child processes using system calls (fork, execvp, dup2, pipe) to handle commands
- Utilized perror for error handling to provide informative feedback on command failures

TECHNICAL SKILLS

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

Technologies: React, React Native, Node.js, Express.js, Flask, RESTful API, PostgreSQL, MongoDB, Power BI, Postman, AWS, Git/GitHub, MATLAB, Visual Studio Code, Eclipse IDE, Microsoft Office Suite

Certifications: Responsive Web Design (freeCodeCamp)