John Fulton

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Summary

Computer Science graduate with experience in full-stack web development and systems programming in C and Python. Skilled in algorithms, data structures, and operating systems, with projects ranging from CPU schedulers to deployed React applications. Currently expanding into AI/ML and cloud platforms, with strong leadership experience as a teaching assistant.

Education

BS - Computer Science, *George Mason University*   05/2025
GPA: 3.4   Fairfax, VA

Dean's List: Spring 2022, Spring 2023, Summer 2023, Fall 2023, Spring 2025

Projects

Personal Portfolio Website
- Built and deployed a responsive single-page portfolio site (johnfulton.dev ⧉) using React and Tailwind CSS.
- Deployed to Netlify with custom domain, HTTPS, and CI/CD from GitHub.

CPU Scheduler (C)
- Designed and implemented a command-line CPU scheduler simulating process execution in an emulated shell.
- Utilized process control blocks and priority-based scheduling algorithms to manage concurrent tasks efficiently.
- Debugged and tested 300+ lines of C code using Linux tools (GDB, Valgrind) to ensure stability and memory safety.
- Documented design decisions and algorithms to streamline future development and peer review.

Floating Point Library (C) - IEEE 754 Standard
- Developed a custom floating-point math library supporting binary addition, subtraction, and multiplication.
- Implemented bitwise operations and binary encoding/decoding routines to ensure precision and correctness.
- Verified calculations with unit tests and performed edge-case analysis for underflow, overflow, and rounding errors.
- Optimized core functions for improved computational efficiency and reduced execution time.

Technical Skills

Languages
Python | Java | C | JavaScript | HTML | CSS

Core Competencies
Algorithms | Data Structures | Problem Solving | Team Collaboration | Technical Communication

Tools/Platforms/Processes
Git | Vite | Netlify | Linux/Bash | SQL | NoSQL | Agile/Scrum | Microsoft Office

Work History

In-Store Shopper, *Wegmans Food Markets*   11/2020 – Present
                                                                                            VA, Fairfax
- Fulfilled and optimized online customer orders via Instacart for 250+ customers
- Analyzed order trends to optimize shopping efficiency and customer satisfaction
- Collaborated with management to improve digital order fulfillment processes
- Recipient of the Wegmans Scholarship from 2022-2025

Undergraduate Teaching Assistant, *George Mason University*   01/2024 – 05/2024
                                                                                            VA, Fairfax
- Led 15+ weekly recitation sessions for 30+ students to reinforce computer science fundamentals including data structures, algorithms, and memory management.
- Provided targeted support to 10–15 students per week, helping debug C and Python assignments and improving code efficiency.
- Developed 5+ supplemental coding examples and walkthroughs to clarify complex topics such as recursion and pointer manipulation.
- Collaborated with faculty to analyze grading data, streamlining workflows and addressing common student misconceptions.

Technical Interests

- Full Stack Development
- Cloud Infrastructure
- Front End Engineering
- Quantum Computing
- Artificial Intelligence
- Data Science