Daniel Hawker

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EXPERIENCE

Graco   **May 2024 - Present**
Software Engineering Intern   *Minneapolis, MN*
- **Lead a cross-functional team** across Minneapolis/Delhi, handling pull requests, code review, and project roadmap
- Develop and optimize embedded Linux software for ProMix V using C and CoDeSys, lowering **CPU load by 80%**
- Conduct extensive **regression testing** to enhance software reliability for key releases and multiple field tests
- Refactor large sections of the codebase for improved scalability and modularity
- Prioritize customer-focused features, saving time, reducing costs, and minimizing environmental impact
- Collaborate directly with customers to gather feedback and participate in field tests to ensure software performance
- Practice Agile methodologies, facilitating daily standups and sprints for an 8-member team using Jira and BitBucket

EDUCATION

University of Minnesota (College of Science and Engineering)   **Expected Graduation: May 2025**
Bachelor of Science (B.S.) in Computer Science, Mathematics Minor   **3.941 GPA**
- Coursework: Data Structures, Algorithms, Software Engineering, Artificial Intelligence, Linear Algebra, Calculus

PROJECTS

Jira Clone - Project Management System | Personal Project | GitHub   **Sep 2024 - Oct 2024**
- Built a full stack Jira clone with a **Go** backend and a RESTful API for CRUD operations and HTTP requests
- Developed the backend logic behind complex features such as user authentication and permissions
- Created a frontend with **React**, Next.js, and Tailwind CSS, replicating the Jira interface
- Containerized the application with Docker for streamlined deployment
- Integrated Amazon **AWS** RDS with **PostgreSQL**, leveraging cloud computing for database management

Drone Delivery System | University Project | DockerHub   **Feb 2024 - May 2024**
- Developed an interactive drone delivery system for the University of Minnesota campus
- Used **C++** and advanced software design patterns to enhance scalability and maintainability
- Integrated backend logic with a **TypeScript** frontend UI using JSON for data exchange
- Led a team of four through the software development lifecycle, utilizing Jira for Agile project management

C++ STL Reimplementation | Personal Project | GitHub   **Jun 2024 - Aug 2024**
- Implemented core C++ Standard Library **data structures** and **algorithms** from scratch (vector, list, set, etc.)
- Conducted **unit testing** with Google Test to ensure accurate functionality and reliability compared to the STL
- Developed a deep understanding of widely used data structures and algorithms

Stock Market Discord Bot | Group Project | GitHub   **Feb 2024 - Mar 2024**
- Used **Python** with Discord and cryptocurrency APIs to provide market data through a Discord bot
- Configured a **SQLite database** to store user preferences, such as update frequency and favorite tickers

Sorting Algorithm Visualizer | Personal Project | GitHub   **Nov 2023 - Feb 2024**
- Used C++ and **OpenGL** through GLFW, GLEW and ImGui to graphically represent sorting algorithms
- Used an SQLite database to store user preferences for visual settings, such as sorting speed and color options

SKILLS

- **Languages:** C, Java, C++, Python, Go, JavaScript, OCaml, x86 and MIPS Assembly
- **Frameworks and Technologies:** AWS, Docker, Next.js, React, PostgreSQL, Tailwind CSS, HTML
- **Tools and Practices:** Git, Linux, MATLAB, R, CoDeSys (Structured Text), Bash, Agile, Embedded Development