Daniel Hawker

dhawk064@gmail.com ❖ (608) 852-2801 ❖ Minneapolis, MN ❖ LinkedIn: linkedin.com/in/daniel-hawker

Portfolio: hawkerd.github.io/profile ❖ GitHub: github.com/hawkerd ❖ DockerHub: hub.docker.com/u/hawkerd

EDUCATION

University of Minnesota   **September 2022 – Present (Graduating May 2025)**
B.S. Computer Science, Mathematics Minor, College of Sci./Eng.   **3.941 GPA**
- Relevant coursework: Artificial Intelligence, Machine Architecture, Operating Systems, Networking, Functional Programming, Discrete Mathematics, Linear Algebra, Algorithms & Data Structures

EXPERIENCE

Graco   **May 2024 - Present**
Software Engineering Intern   *Minneapolis, MN*
- Led a cross-functional team across Minneapolis and Delhi, managing pull requests, conducting thorough code reviews, and driving decisions on the project roadmap and release cycle.
- Developed and optimized embedded Linux software for Graco's ProMix V, using **C** and Structured Text (CoDeSys), significantly enhancing machine control processes and user interface responsiveness.
- Added features to save customer time, reduce material costs, and minimize environmental impact, directly contributing to Graco's sustainability and cost-efficiency goals.
- Performed extensive regression testing, improving software reliability for important launches and field tests.
- Practiced Agile methodologies through daily standups and sprints, using tools like Jira, Git, and BitBucket.

PROJECTS

Jira Clone   github.com/hawkerd/jira-clone
- Developed a full stack Jira clone using **Go** for the backend to support CRUD operations/ HTTP requests.
- Created the backend logic behind complex features like user authentication and permissions.
- Built the frontend with React, Next.js, and Tailwind CSS to replicate the Jira interface.
- Containerized both ends of the application with Docker for easy deployment.
- Integrated **Amazon AWS RDS** using **PostgreSQL** to leverage cloud computing for a database.

Drone Simulation (University of Minnesota)   hub.docker.com/repository/docker/hawkerd/drone_simulation_final
- Collaborated with a team of three UMN students to develop a **full-stack** interactive drone simulation.
- Developed the **backend** logic in **C++** and integrated it with a **frontend** UI built with **HTML**/ **CSS**/ **TS**.
- Utilized **Git**, Jira for agile project management, and **Docker** for containerization and deployment.
- Implemented advanced software design patterns to enhance system scalability and maintainability.

STL Reimplementation   github.com/hawkerd/stl
- Implemented core **C++** standard library **data structures and algorithms** from scratch, including vector, list, map, and set, mimicking the behavior and performance of their standard counterparts.
- Performed **unit testing** using the **Google Test** library to ensure functionality compared to the STL.
- Gained a deep understanding of commonly used data structures/ algorithms and their implementations.

SKILLS

- Languages: C, Go, Python, C++, Java, OCaml, x86 and MIPS Assembly, HTML, CSS, JavaScript
- Technologies: Next.js, React, PostgreSQL
- Practices: Agile, OOP, embedded development, software testing
- Tools: Git, Linux, Docker, GDB, Valgrind, UML, MatLab, R, CoDeSys(Structured Text), LaTeX
- Problem solving: Algorithms, Data Structures, Calculus, Linear Algebra, Statistics
- Soft skills: Project Management, Leadership, Collaboration, Professional Communication