Walter Svenddal

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https://github.com/svew

Education

Pursuing B.S. in Computer Engineering, Iowa State University (Ames, IA), December 2019, GPA: 3.67

Relevant Coursework: Advanced Design & Analysis of Algorithms   Operating Systems: Principles & Practice
Computer Organization & Assembly Programming   Embedded Systems

Experience

Software Intern, Garmin International, Olathe, KS — Summer, 2018

Garmin International develops aviation and marine electronics, fitness wearable technology, and leads the industry in GPS consumer devices.

- Improved team's workflow by writing Python scripts to compare in-house aviation take-off and landing calculations against airplane manufacturer calculations
- Developed other scripts to automate sequence of git actions, VS builds, and simulator setups
- Presented technical information on work achieved to team, oriented them with new scripts

Development Intern, Clearwater Analytics, Boise, ID — Summer, 2017

Clearwater Analytics develops financial software for corporations, reports on over $1.7 trillion in investments. Clients include Facebook, Cisco, etc.

- Summer project focused on reducing calculation times of market analytics with C++. Reduced times by 85%
- Architected and created support libraries for future job process development and job-server communication with small agile team, using sprint planning techniques
- Pioneered new libraries and tools used for future company-wide C++ development

Computer Science TA, Iowa State University, Ames, IA — Fall, 2016 – Fall, 2018

- Mentored students in object-oriented programming basics (control flow, polymorphism, debugging, etc.)
- Taught supplemental recitations on data structures and algorithms, put together PowerPoint presentations
- Lead lab sections, held office hours, graded programming homework and exams

Projects

Hack ISU (Project Watchdog) — Fall, 2018

- Read & interpreted Android sensor data to detect signs of distress (scream, fall detection), then sound alarm

Filmcrawler — Summer, 2018

- Personal project to extract movie & TV show data from IMdB.com, store in MySQL database
- Performed statistical analysis to determine movie preferences

Voronoi Diagram Algorithm — Spring, 2018

The Voronoi diagram and Delaunay triangulation have applications in robotic pathfinding

- Implemented nearest-site Voronoi diagram & Delaunay triangulation in Rust with OpenGL GUI output display

Mars Rover — Fall, 2017

- Project to program a modified Roomba to navigate obstacle course with ARM microcontroller in C
- Used sensors and signals to interact with the world (UART serial comm., ADC, software-side PWMs, etc.)

Hack ISU (Project Blank Slate) — Spring, 2017

- Built and programmed an Arduino-driven automated whiteboard printer for drawing complex graphics
- Designed and 3D printed prototype parts using Autodesk Inventor, programmed stepper motors in C

Skills

Languages: Java, C, Python, C++, Rust, JavaScript, Lua
Systems/Software: Windows, Linux, Eclipse, Git, Visual Studio, Netbeans, Atlassian (Jira, Fisheye, Confluence)

Clubs & Activities

Critical Tinkers: Vice President (Led meetings, distributed funds for independent student projects)
Google Code Jam: Participant for past 4 Google Code Jam Kickstart challenges
Digital Women: Organizer and volunteer for women-focused hackathon, active participant in club activities
Iowa State Improv: Participant