Will Savage

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Summary

Student with 5+ years of programming experience. Capable of working in both team and solo environments to design and deliver high quality and flexible software. Worked on projects spanning a wide range of technologies, from bare-metal operating systems to web apps, computer vision solutions, and everything in between.

Skills

Languages: C, C++, Java, Python, Rust, Go, Javascript, HTML/CSS

Tools: Git, GDB, Valgrind, *nix scripting, SQL, REST, CMake

Domains: Computer vision, Machine learning, OS design, Compilers, Web

Work Experience

Jefferson Lab National Accelerator Facility *(2022)* - As an engineering intern at JLab, worked with senior engineers and scientists to design and build a new software system for calibrating high momentum spectrometers used to collect particle data from the lab's particle accelerator.

Arlington Public Schools *(2022)* - Worked as assistant teacher for a summer school course preparing students for AP Computer Science. Effectively communicated computer science concepts to students while collaborating with the primary teacher to design and employ lesson plans.

Projects

Spectreye *(2022)* - Tool using OCR and computer vision to automatically extract calibration data from images of spectrometers at the Jefferson Lab particle accelerator. Original prototype was written in Python, then reimplemented in C++ for use as a shared library in the Hall C production codebase. Utilized OpenCV, Tesseract, and various deep learning models for text recognition.

Pupil-Controlled Vehicle *(2021)* - Led a small team in designing and building a vehicle capable of being controlled solely by the movement of the user's eye. Used OpenCV, Python, 3D printing, HTTP sockets, and other technologies to rapidly iterate upon the device and complete it within an extremely short timeframe. Selected as a finalist project for the 2022 International Science and Engineering Fair.

xsnip (*2021-2022)* - A screenshot program for X11 written in C. Rapidly implemented and improved features based on community feedback while ensuring memory safety and system compatibility.

H-B Woodlawn Arena Scheduling (*2021)* - Maintained, upgraded, and oversaw the cloud deployment of a microservice used by my high school to generate student schedules and class rosters.

Education

H-B Woodlawn Secondary Program (Class of '24)

AP Computer Science A - As a freshman, assisted numerous classmates in understanding material and coursework. Achieved the maximum possible score of 5 on the AP test in Java.

Independent Study in CS - Managed, networked, and improved school CompSci lab while simultaneously pursuing independent software projects.

Awards

Finalist, 2022 International Science and Engineering Fair
Winner, 2022 Northern Virginia Regional Science Fair
Winner of AFCEA, IEEE, and Aerospace Corporation Regional Science Fair Awards

Other Activities

Rowing
Member of varsity rowing team at Yorktown High School
Member of high performance squad at TBC Racing