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jacksoncampolattaro
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Self-motivated Computer Engineering student with programming experience and an enthusiasm for Open Source principles.
I use complex, long-term personal projects as a medium for exploration of new programming languages, tools, and techniques.

Education

GPA 3.59 in-major, 3.45 overall

Virginia Polytechnic, *Computer Engineering*. **Graduation Spring 2021**

Pursuing a major in Computer Engineering with a minor and specialization in Computer Science. 117 Credit Hours Earned. Expected to graduate 1 year early due to accelerated classes.

Skills

Languages

C++. **6 Years Experience**

Libraries: Catch2, libsigc++, OpenMP, Intel TBB, Posix Threads, Gtkmm, Qt, OpenGL, GLFW, Magnum, CLI11, spdlog, Cereal, RapidJSON, TOML11, Libsoundio, FFTW

C. **2 Years Experience**

Libraries: Jansson, LibJWT

Python. **2 Years Experience**

Libraries: OpenCV

Others. **In Order of Experience**

Java, Rust, Verilog, HTML + CSS / Sass, Octave / Matlab, LabView, MIPS Assembly, x86 Assembly

Tools

Git	GDB	Github Actions	Markdown
Linux	Perf	Ansible	Basler Pylon
Valgrind	Travis CI	Doxygen	LaTeX

Experience

Employment

Google Summer of Code Apprentice, *CGAL*. **May 2020–Present**

Working remotely with a mentor in France to develop a new software package. The project is an Octree data structure, used in other packages. Requires a mix of working with legacy code and green-field development.

Innovation Committee Member, *Telos Corporation*. **June 2019–August 2019**

Worked in a 7 person group of interns researching the viability of future software security products. Built the frontend of a replacement for Telos' employee intranet solution.

Projects

Quarter ID, *Python*. **August 2020–Present**

Leading a small team of interdisceplenary engineering students to develop a solution which determines the value of collectible coins using machine vision. Involves industrial imaging and lighting hardware, paired with bespoke software written in Python using OpenCV.

N-Body, *C++*. **July 2018–Present**

Independently building a multi-threaded dynamical simulation tool to improve my familiarity with optimization, build tools, design patterns, and libraries. Incorporated concepts including concurrency, event-driven programming, serialization, cache-optimization, and tree algorithms among others.

Spectrogram, *C++*. **August 2020–December 2020**

Developed a low-latency Spectrogram audio frequency visualizer alongside two other students. Involved navigating real-time limitations in a contemporary event-driven desktop application, as well as CI, build system engineering, and other team management logistics.

References

Dr. Simon Giraudot. ✉ **simon.giraudot@geometryfactory.com**

Dr. Creed Jones. ✉ **crjones4@vt.edu**

Professor David McPherson. ✉ **dmcphers@vt.edu**