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in jacksoncampolattaro

🔊 JacksonCampolattaro

Jackson Campolattaro

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

TU Delft, Computer Engineering.

Fall 2021–Spring 2023

Research-oriented Master in Computer Engineering

Virginia Polytechnic, Computer Engineering.

Fall 2018–Spring 2021

Major in Computer Engineering with a minor and specialization in Computer Science. Graduated 1 year early due to accelerated classes, GPA 3.64/4.00 in-major, 3.46/4.00 overall.

Skills

Languages

C++.

7 Years Experience

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

C, Python, Java.

4 Years Experience

Libraries: Jansson, LibJWT

Others.

In Order of Experience

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

Tools

Git

GDB

Travis CI

Doxygen

Linux

Perf

Github Actions

Markdown

Valgrind

Tensorflow

Ansible

LaTeX

Experience

Employment

SIMD Research Internship, Inria.

May 2021–August 2021

Worked alongside PhD students at Inria Research Center Sophia Antipolis to incorporate SIMD concepts into CGALs collision detection packages, improving performance.

Google Summer of Code Apprentice, CGAL.

May 2020–August 2020

Worked remotely with a mentor in France to develop a new software package. The project is an Octree data structure, used in other packages. Required 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–June 2021

Lead a small team of interdisciplinary engineering students to develop a solution which determines the value of collectible coins using machine vision. Involved 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.