Nathan Hutton

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EDUCATION

Bachelor of Computer Science - 4.0 GPA

Aug. 2021 – June 2024

Westminster University

SLC, UT

- Applied mathematics minor
- Studied abroad in Spain

RELEVANT WORK EXPERIENCE

Software Engineer Intern

Mar. 2023 – Present

Idaho National Laboratory

SLC, UT

- Configure CI/CD pipelines and test harnesses
- Work with C/C++/Python/MATLAB waveform code on Linux
- Debug and reformat code
- Implement GUIs which interface with a backend

IT Technician Aug. 2021 – Present

Westminster University SLC, UT

Computer Science Tutor/TA Sep. 2022 – May 2024

Westminster University SLC, UT

NOTABLE PROJECTS

- Solar System: Simulation of a solar system using OpenGL/C++ with dynamic physics. Includes smooth shading, shadow mapping, texture mapping, model importing, Phong Lighting, HDR, bloom, and skyboxes.
- Ray-Tracer: Python program replicating the physics of light to create an image. Functionally for smooth shading, triangle meshes, Phong lighting, point lights, shadows, and transformations.
- **Squibblets**: 4-person team Unity project using AGILE. I made 54% of all commits and created the main gameplay loop, movement, online leaderboards, audio, AI, UI, menus, and more. Also significantly contributed to code organization and bug fixes. A web version (with missing features due to Itch.io limitations) can be found here.
- MiniJava Compiler: Compiler created in Java with features such as type-checking, lexing and parsing with ANTLR4, JVM assembly code generation, AST generation, class and block structure (flow control), print statements, package inclusion, and method calls.
- Flight Tracker: Python app which interfaces with an API to find cheap flights to locations the user specifies. Dynamically updates a spreadsheet with flight info and sends the user a text message.