

Preston Pickering

Software Engineer

Email prestoncpickering@gmail.com

Phone (541) 613 4401

Github [LudumSi](#)

Website ludumsi.net

SUMMARY

I became a **software engineer** to solve **complex problems** with computation. I **love to learn** about new technologies, domains, and approaches. Let me apply my passions to producing **the solutions you need**.

WORK EXPERIENCE

Collins Aerospace: August 2022 - Present

- Rehosed two 15-year old embedded hardware projects to work on Windows
- Learned CMake to convert the same project to a new build system, allowing it to be built in both VSCode and Visual Studio.
- Supported the onboarding of overseas workers
- Wrote verification utilities for python testing environment
- Updated engineering requirements

College of Engineering IT: September 2019 - June 2022

- Worked throughout college, providing IT support to engineering staff and faculty
- Communicated directly with customers, accomplished projects, and trained new employees

SKILLS

C++

C

Python

Git

Data Structures

CMake (Self-taught)

Assembly Language

NodeJS

Rust (Self-taught)

OpenGL/GLSL

Parallel Programming

Digital Logic

HTML/CSS/JS

SQL

NumPy

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EDUCATION

Bachelor of Science in Computer Science at Oregon State University. June 2022. Mathematics minor. 3.69 GPA.

Senior Project

- Worked in a multidisciplinary team alongside electrical and mechanical engineers to produce a mobile 5-axis 3D printer.
- Implemented inverse kinematics to execute printhead path instructions

Coursework

- Programmed an operating system with virtual memory management and multithreading.
- Experience with linear algebra, vector math, physics simulation, and animation techniques especially in the context of games and simulations.
- Programmed with OpenGL and GLSL for game development.
- Ran Monte Carlo physics simulations using CUDA.
- Performed autocorrelation of data using MPI.
- Programmed ATmega128 Microcontroller to translate user-entered text into Morse code using Atmel assembly.
- Designed digital logic circuit to produce VGA output, tested on FPGA.
- Exposure to web technologies and machine learning.

EXPERIENCES

Hobbies and Interests

Tabletop roleplaying games, video game development, and organizing related events for friends. Recently picked up bouldering.

Boy Scouts of America

Achieved the rank of Eagle Scout. Led meetings, scheduled and organized events. Engaged in community service. Fundraised, organized, and led a project to restore part of a local cemetery.