ETHAN T. BLAKE

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EDUCATION

Bachelor of Science in Computer Science December 2022
Oregon State University GPA: 3.87
Bachelor of Music in Vocal Performance May 2018
Arizona State University GPA: 3.84

PROJECTS

CS344 Smallsh GitHub
- Built using C in Linux
- C program that mimics some Bash Shell functionality including ls, <, > pwd, cd, etc.

AQ6331-Spectrum-Analyzer-GUI GitHub
- Built with Python
- Used libraries Tkinter, Pandas, Matplotlib, PyVisa, Multiprocessing, Threading
- This application runs 3 instruments synchronously to test how equipment performs across varied temperature.
- This application plots the data in real time, so that the test can be continuously monitored

LPF-Coefficient-Optimizer GitHub
- Built with Python, used Multiprocessing to run multiple optimizations simultaneously
- Given a filtering system, I needed to find optimum filter coefficients to fit one sine wave to another.
- This optimizer works by comparing the sum of the absolute value of the differences in two sine waves, adjusting coefficients, and keep the adjusted coefficients if they produce a better result

Personal Website Website | GitHub
- Built with Python, Flask, Html5up, and hosted on Vercel

SKILLS

Languages: Python, C, C++, HTML, CSS, MASM 32-bit Assembly, JavaScript,
Technologies: PyVISA, Matplotlib, Tkinter, Pandas, Multiprocessing, Numpy, Ctypes, Cuda, OpenCL, Open MP Parallel Programming, Open MPI Parallel Computing, Linux, APIs, Flask

WORK EXPERIENCE

Undergraduate Learning Assistant: Data Structures September 2021 – Present
Oregon State University
- Assist students during office hours, grade homework, and proofread assignment prompts and rubrics
- Developed python style guide for students

Software Engineer May 2020 – Present
Grid Evolution Technologies, Scottsdale, AZ
- Write software for optical fiber test equipment
- Utilize PyVisa, Pandas, Tkinter, Matplotlib, and Multiprocessing to connect equipment and display real-time test data
- Leverage Excel and Python to filter and model electrical signals, including signal processing, Kalman noise filtering, and digital automatic gain control

AWARDS

PSAT National Merit Scholar