

# ETHAN T. BLAKE

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## EDUCATION

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### Bachelor of Science in Computer Science

Oregon State University

December 2022

GPA: 3.87

### Bachelor of Music in Vocal Performance

Arizona State University

May 2018

GPA: 3.84

## PROJECTS

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### 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

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**Languages:** Python, C, C++, HTML, CSS, MASM 32-bit Assembly, JavaScript, SystemVerilog

**Technologies:** PyVISA, Matplotlib, Tkinter, Pandas, Multiprocessing, Numpy, Ctypes, Cuda, OpenCL, Open MP Parallel Programming, Open MPI Parallel Computing, Linux, APIs, Flask, Xilinx Vivado

## WORK EXPERIENCE

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### 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

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**PSAT National Merit Scholar**