

# ETHAN T. BLAKE

ethanblake417@gmail.com • 480-400-5202 • [GitHub.com/EthanBlake417](https://github.com/EthanBlake417)  
• [LinkedIn.com/ethan-blake-dev](https://www.linkedin.com/in/ethan-blake-dev) • [ethanblake-computerscientist.com](https://ethanblake-computerscientist.com)

## EDUCATION

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### Bachelor of Science in Computer Science

Oregon State University

December 2022

GPA: 3.91

### Bachelor of Music in Vocal Performance

Arizona State University

May 2018

GPA: 3.84

## PROJECTS

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### CS344 Small-SH

[GitHub](#)

- C program in Linux that mimics some Bash Shell functionality including ls, <, > pwd, and cd.

### AQ6331-Spectrum-Analyzer-GUI

[GitHub](#)

- Developed a Python application using libraries Tkinter, Pandas, Matplotlib, PyVisa, Multiprocessing, and Threading
- Ran 3 instruments synchronously to test how equipment performs across varied temperature
- Plotted the data in real time for continuous monitoring of the test

### LPF-Coefficient-Optimizer

[GitHub](#)

- Developed a Python optimizer using Multiprocessing to find optimum filter coefficients to fit one sine wave to another for a filtering system
- Used sum of the absolute value of the differences in two sine waves to adjust coefficients and keep the adjusted coefficients if they produce a better result

### Personal Website

[Website](#) | [GitHub](#)

- Built a website 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 – December 2022

Oregon State University

- Held office hours twice a week for 2 hours
- Performed 25+ weekly code reviews on student assignments
- Developed a student Python style guide

### Software Engineer

May 2020 – Present

Grid Evolution Technologies, Scottsdale, AZ

- Write software for optical fiber test equipment using 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**