Ethan T. Blake

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Education

Georgia Institute of Technology — Atlanta, Georgia
Master of Science, Computer Science — *Jan 2024 — Present*
- GPA: 3.25, Dean's List

Oregon State University — Corvallis, Oregon
Bachelor of Science, Computer Science — *Jan 2021 — December 2022*
- GPA: 3.91, Dean's List

Arizona State University — Tempe, Arizona
Bachelor of Music, Vocal Performance — *Aug 2014 — May 2018*
- GPA: 3.84, Dean's List

Work Experience

Software Engineer — May 2020 — Present
Grid Evolution Technologies — *Scottsdale, AZ*
- R&D: Constantly write new scripts or UI for emerging problems
- Application Development: Developing a GUI for a three-phase chassis for Hubbell
- Software Maintenance: Maintain GUI software for Grid Evolution Technologies and Dynamp

Undergraduate Learning Assistant: Data Structures — September 2021 — December 2022
Oregon State University — *Corvallis, Oregon*
- Held office hours twice a week for 2 hours
- Performed 25+ weekly code reviews on student assignments
- Developed a student python style guide

Projects

Grid-Test-GUI
- Developed a Python GUI for controlling various instruments, including a dc power supply, extinction ratio meter, oscilloscope, multimeters, and ovens
- Implemented synchronous data collection using multiprocessing and threading
- Enabled live data manipulation, collection, and visualization

Source-Screen-Calculator
- Development: Utilized Pandas, Numpy, Numba, and Cuda to calculate micrometer-scale light travel
- Complexity: Addressed an O(n^4) problem due to short distances
- Scale: Handled calculations for 1000x1000 source and screen arrays, equating to trillions of computations
- Optimization: Used Cuda for GPU calculations and Numba for CPU parallelization, dividing the tasks
- Result: Achieved a 150x speedup, streamlining complex calculations

CS344 Small-SH — GitHub
- Created a C program in Linux that mimics some Bash Shell functionality, (e.g., ls, <, >, pwd, cd) for an OSU school project

Awards

- PSAT National Merit Scholar

Skills

- **Languages**: Python, C, C++, HTML, CSS, MASM 32-bit Assembly, JavaScript, SystemVerilog, Typst
- **Technologies**: PyVISA, Matplotlib, Tkinter, Pandas, Multiprocessing, Numpy, Ctypes, Cython, Numba, Eel, Cuda, OpenCL, Open MP Parallel Programming, Open MPI Parallel Computing, Linux, APIs, Flask, Xilinx Vivado, Docker