

BRAYDEN HILL

📞 770-519-3644 ✉ hillbgh@gmail.com 🌐 github.com/Vespertine112 🌐 braydenhill.dev

Education

Bachelors of Science - Computer Science

August 2020 - May 2024

Mathematics Minor

Utah State University - Honors: Magna Cum Laude

Logan, Utah

Experience

Window Perfect

May 2022 – Present

Full-Stack Developer

Logan, Utah (Remote)

- Owned, Designed, Implemented, and Maintained core functionality and features for our CRM product, built with Electron, Angular, and Node.js.
- Discovered and fixed data pipeline issues which resulted in significant reduction in request size and a large increase in performance over previous methods.
- Built an internal framework for PDF report generation for customer invoices, orders, and model sketches, utilizing popular libraries and best practices.
- Implemented automatic program updates with UX/UI, viewable patch notes, backend implementation, release channels, versioning, and more.

Systems Evolution, Inc (SEI)

May 2021 – May 2022

Software Developer Intern

Logan, Utah (Remote)

- Built and designed inventory tracking scripts to track the internal technology assets allocated to employees.
- Collaborated on, and assisted with implementation of many RMM scripts used to perform asset diagnostics and gather remote data.
- Created many programs to assist data management and automation with outbound API interactions to Dropbox, SharePoint, and more.

Projects

OpenLift | Python, PyTorch, Pandas, Numpy, etc

Nov 2023

- Designed a Machine Learning Pipeline & Models to predict powerlifting totals for competition lifts. The models are very highly performant ($R^2 \geq 0.97$).
- Performed data cleaning, curating, and EDA (exploratory data analysis), optimizing for lowest feature space possible with performance.
- Implemented custom classification reporting and analysis to parse results.

Frappuccino Shop | Typescript, Angular, Firebase Auth, MongoDB, Django

Aug - Dec 2022

- Lead a team of student engineers to build a custom complete web application for a frappuccino shop.
- Developed and designed user account management through Firebase Auth, including many OAuth providers, and its interpolation in MongoDB.
- Helped architect and implement the ordering user flow in both the back-end and front-end, to create a streamlined experience and allow for order add-ons.

High Performance Viewshed Computation | C++, MPI, CUDA, OpenMP

Dec 2022

- Worked on a team to create a high performance viewshed computation, running on multiple GPUs and CPUs across a clustered super-computing network.
- Designed and implemented the MPI control structure for the division of core data across the network, and the accompanying parallelized distributed CPU approach.
- Created data visualizations and produced scaling reporting for the final program to demonstrate a 3600x increase in performance over single core. (Available on Request)

Technical Skills

Languages: C++, C#, Python, Java, Kotlin, JavaScript, Typescript

Tools/Platforms: VS Code, Vim, Android Studio, Git, GitHub, Visual Studio, HubSpot, Firebase, Bitbucket

Technologies/Frameworks: Linux, WSL, Angular, Svelte, SvelteKit, React, Electron

DevOps / CI CD: AWS S3, AWS, Github Actions, Docker, Docker Compose, Vercel