

Matthew R. Hall

me@matthall.codes

matthall.codes

linkedin.com/in/matt-hall-osu

937-846-4465

WORK EXPERIENCE

Akkio *AI Application Engineer, Frontend*

San Francisco, CA — 2023 to Present

- Implemented UI patterns common in AI applications, including Chat streaming and contextual autocomplete, to create a seamless AI experience for Akkio's users at large media agencies.
- Architected the internal design system. Scoped requirements from engineering and design to both introduce 50 new reusable controls and upgrade all existing UI components (500+ components, 200k+ LOC) to modern best-practices. Drove increased Typescript adoption from 5% to 75%.
- Planned project milestones and defined code quality standards for three direct reports while balancing training and onboarding as Akkio's team grew 4X in headcount. Organized priorities and efforts while delivering a Proof-of-Concept critical to closing a \$5M ARR corporate partnership.
- Implemented a backend RPC service allowing Frontend team to scale independently of ML team while sharing the same database. This Zero-to-One effort accelerates independent development of the business logic service and handles more requests than any other single service in our architecture.
- Built web-based data visualizations following specs from our clients using Chart.js and Mapbox.

Google *Software Engineer, L3*

Irvine, CA — 2022 to 2023

- Presented a prototype of a document knowledge system leveraging early versions of the Gemini model and a Vector Database to boost accuracy in support chat. Prototype adopted by leadership for future work.
- Established a microservices architecture for a new product. Stood up CI/CD pipelines for the project.
- Executed a cross-team initiative to display app install banners on mobile devices. Deployed the feature in an experimental A/B rollout to users, increasing Chrome installs by 25% across the group. Results forecasted a \$4M increase in revenue if fully rolled out, with no reduction in user engagement.
- Coordinated with partners in Google Support and YouTube orgs to design, build and launch video publishing features for help center authors. Achieved feature-parity with the rich-text article feature.
- Owned the Localization and Internationalization (i18n) feature used by over 100 teams across Alphabet. Responsible for triaging and fixing bugs for a tool used to translate content between over 50 languages.

Capital One *Software Engineering Intern*

McLean, VA — Summer 2021

- Developed a full-text document search service API and user interface. Allowed users to retrieve financial documents based on filters or full text. System stored thousands of Word and PDF documents.
- Created the frontend UI in React and translated the frontend and backend codebases to Typescript.
- Implemented AWS Lambda functions with Elasticsearch and NoSQL stores behind a SQS queue. Led the creation of a "backend-for-frontend" service bridging our React frontend with the AWS services.

EDUCATION

The Ohio State University BS, Computer Science

Class of 2022

Relevant Coursework: Parallel Computing, Realtime Rendering, Artificial Intelligence, Computational Geometry

PROJECTS

Programming Language Project github.com/mh15/imp

2021 to 2022

- Created a statically-typed hobby programming language to explore the field of language design.
- Features included first-class functions, method overloading, closures and struct types. The language is statically typed with type inference and compiles to the JVM bytecode format.

The Woods wizaga.com/thewoods.html

Columbus, OH — 2019 to 2021

- Developed a room-scale, multiplayer Augmented Reality (AR) experience with a team of faculty and students at Ohio State's Advanced Computing Center for the Arts and Design (ACCAD).
- Accepted to international conferences including [SIGGRAPH 2021](#) and [Currents New Media](#).