

– EXPERIENCE –

Google – Senior Software Engineer – Mountain View, CA

2022-present: Tech lead of a few engineers for the Google Photos web image editor, redesigned on WebAssembly to share the native C++ image processing stack with mobile platforms, using a data-reactive UI and material design. Executed high-quality UX and performance goals for in-browser ML image editing features launched to millions of users.

2018-2021: Software engineer for many individual photos.google.com teams, including creating a reliability framework, leading the web sharing team to bring a novel image sharing UI to production, engineering and designing the memories API layer, and the full frontend story player with Google technologies.

Oct 2022: Presented recruiting and outreach tech talk at the Google Sandbox San Antonio event.

Google – Software Engineering Intern – Mountain View, CA

2017: Engineered Live photos playback on the web using the Google Photos infrastructure (TypeScript, Java).

2016: Built a full-stack feature (C++, Java, Web UI) for Google Photos in the Geo department

Microsoft – Software Engineering Intern – Redmond, WA

2017: Designed & implemented XAML and C++ features in Microsoft Edge.

2016: Worked on prototyping new Microsoft Edge features with JS and C++.

2015: Designed & implemented ASP.net services utilizing several Azure services on the Dynamics CRM team.

Bryx, Inc. – Software Engineer – Rochester, NY

2014-2016: Created a real-time user & asset management portal in Angular.js, Bootstrap, API design. Built a Google Maps and Leaflet.JS data visualizer for first responders and dispatchers so that they can respond to 911 alerts quickly.

The Green Team Home Selling System – Lead Web Developer – Warwick, NY

2011-2016: Designed and developed a responsive, single-page real estate search engine and SSO portal. Created a custom PHP MVC framework with client-side routing in JavaScript and a Google Calendar/Contact Sync for SugarCRM.

Blue Buckle Marketing – Web Developer – Chester, NY

2011: Contracted to create public-facing websites for local companies including some SEO & marketing work.

Onion House Productions – Self-owned freelance web developer – Florida, NY

2008 - 2010: Designed websites for businesses, negotiated with clients, deployed and maintained sites.

– PROJECTS –

Fourier Visualizations, an interactive audio-visual wave simulator – bgrawi.com/Fourier-Visualizations
Built with HTML5 Canvas, WebAudio APIs, Material Design, and Fourier's theorems

JSFLAP, a web-based finite state machine designer and simulator – jsflap.com

Written in D3.js, TypeScript, and Foundation to create a more user-friendly "JFLAP" replacement.

CSH "ScheduleMaker" Frontend, a scheduling tool used by 10k+ RIT students – schedule.csh.rit.edu

Redesigned the frontend of a popular RIT schedule creation tool with Angular.js, Bootstrap, and more.

Commit Guru, a commit analyzing system, a research project with Dr. Emad Shihab – commit.guru

Created a Node.js web application (Sails.js/Socket.io/Angular.js) that predicts bug-inducing commits based on their contents, co-authored published paper for the ESEC/FSE 2015 conference.

– SKILLS –

Language expertise

TypeScript/JS, HTML, CSS, UI/UX Design.

Platform experience & language familiarity

Java, C++, MediaPipe, TFLite, Angular.JS, MySQL, React, Node.js, Git, PHP, Swift.

Software engineering

System architecture design, Mentorship, Project management, Detailed design docs, Unit & integration testing, Experiment design/analysis.

– EDUCATION –

Rochester Institute of Technology

2018: Software Engineering B.S.,

Summa Cum Laude, 3.8 GPA.

Received Outstanding Undergraduate Scholar Award, member of the Computer Science House.

– HOBBIES –

Skier, Sailor, Hiker, Eagle Scout (2013)

Percussion & Music production.