

– EXPERIENCE –

Google – Senior Software Engineer – New York, NY & Mountain View, CA

2024-present: Tech lead for drive.google.com PDF editing features including form filling, modernizing UI architecture, championed high-value software engineering principals around testing, ownership, architecture and roadmapping complex dependencies between projects to deliver the highest value to users.

2018-2024: Tech lead on many photos.google.com projects, launched the image editor redesigned on WebAssembly to share the native C++ in-browser ML image processing stack with mobile platforms, rewrote in a data-reactive UI and iterated to ensure performance goals were met for millions of users with a high quality UX. Before this, worked on many individual projects, including creating a client reliability measurement framework, leading the web sharing team's launches, engineering and designing the memories API layer including the full frontend for the story player with Google's technologies. Presented recruiting and outreach tech talk about reliability at a Google Sandbox San Antonio event.

2017 SWE Intern: Engineered Live photos playback on Google Photos web (TypeScript, Java).

2016 SWE Intern: 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.