

Mission Statement

My mission is to help humans make good decisions, solve big problems, and have better conversations with each other. I want to fight climate change, build resilient communities, and improve public discourse. I am skilled at building software, processing data, maintaining reliable services, informal leadership, and compassionate listening.

Computer Nerd

- Since my introduction to Logo and BASIC at age 10, I have relished wrapping my mind around formal language and precise instructions. My professional coding experience lies mostly in Java, JavaScript, Go, and Kotlin. In my quest for the right balance between fluid English and mathematical formalism I've used Ruby, Python, Perl, Raku, C, C++, Dart, bash, PHP, and VimScript and dabbled in many others.
- I help teams and individuals grow. I've conducted over 250 technical interviews and sat on a hiring committee. I am a thorough code reviewer and have provided feedback on hundreds of design documents.
- Since 2009 I've worked as a staff software engineer at Google. I work on Street View, helping people contribute images and videos of their local community through a mobile app. I also work on data processing to keep Google's map data fresh. I previously worked on Google Drive, helping hundreds of millions of users organize, share, and enjoy their files. I helped build the Drive UI, file viewer, video playback, downloads, data analysis pipelines, document approvals, and server infrastructure. I led a major migration effort of a critical legacy system, increasing development velocity and reducing operational overhead. I've served on 24/7 on-call rotations to ensure service reliability. I helped improve internationalization and accessibility.
- From 2004 to 2009 I worked as a software engineer at Tyler Technologies, building enterprise applications for county government offices. I explored requirements with analysts, built GUIs, designed core services, led complex module development, and crafted a data conversion specification. I created a system to extract named entities from OCR text. I developed the architecture and user interface to work with GIS data.
- At UNAVCO in 2003 I used Perl and JavaScript to create educational Earth science map tools.
- In December 2003 I graduated from the University of Colorado, Boulder. I received both a Bachelor of Science With Distinction and a Master of Science in Computer Science. My GPA was 3.8 on a 4.0 scale.

Eclectic Philosopher

- At CU, I minored in philosophy and was president of the Philosophy Club. I love to explore life's deep questions. I use analytic and holistic techniques to explore ethics, society, identity, and metaphysics.
- I've given public talks about org charts, the meaning of money, carbon pricing, and moral foundations.
- I bring insights from philosophy and psychology to computer science. Software has a big impact on humans and groups. User research and empathy is crucial, and we should strive to make software a force for good.

Generally Diverse Individual

- I literally and figuratively wear many hats in organizations, providing insight and effort wherever needed.
- I co-lead a chapter of Citizens' Climate Lobby, a nonpartisan advocacy group building political will for major climate change legislation through respectful dialog across the political spectrum.
- At Burning Man I volunteer as a Black Rock Ranger, practicing compassionate peer counseling, non-confrontational community mediation, and incident management in a diverse and dynamic temporary city.
- In college I developed leadership skills as a resident advisor; as chapter vice president of Tau Beta Pi national engineering honor society; philosophy club president; and as organizer of spiritual and political student groups.
- I am a friendly and unique individual. While I take projects and tasks seriously, a subtle wit and creative approach to the mundane pervade my actions, keeping a smile present among my fellows. My extensive knowledge of geographic, historic, and scientific facts entertains coworkers during casual moments.
- I connect with the world through photography, homebrew, ham radio, camping, bicycling, and playing games.

Summary

- My mission is to help humans make good decisions, solve big problems, and have better conversations
- Interests include climate change, community resilience, public discourse, geography, and energy
- Bachelor's and Master's degrees in computer science, minor in philosophy
- Experienced with Java, JavaScript, Go, Kotlin, HTML/CSS, SQL, NoSQL, Linux, Android, Vim, big data
- Familiar with C, C++, Dart, Perl, PHP, Python, Raku, Ruby, cloud, geodata, imagery, video, I18N, A11Y

Experience

Google LLC Boulder, CO
Staff Software Engineer Nov, 2009 – Present

- Street View: mobile apps to enable user imagery contribution from around the world
- Worked on frontend server, API, Android app, video capture, data processing
- Google Drive: tools to store, organize, and share files; web UI, frontend, backend
- Worked on Drive UI, file viewer, video playback, downloads, workflow, and server architecture
- Wrote pipelines and crafted dashboards to measure and understand product usage
- Educated cross-functional stakeholders on query and analysis tools for internal data sets
- Monitored and maintained production services used by hundreds of millions of people
- Led migration and turn-down efforts for a critical legacy service, easing operational load
- Reviewed hundreds of design documents and thousands of source changes
- Interviewed over 250 engineering candidates; served on weekly hiring committee

Tyler Technologies Inc. Lakewood, CO
Software Engineer Feb, 2004 – Apr, 2009

- Eagle products: Java-based enterprise applications for county recording, appraisal, and tax offices
- Designed, implemented, debugged, and refactored code at all levels
- Implemented information extraction from OCR text to save data entry time
- Lead developer for GIS architecture and UI, built on GeoTools API
- Informal leader for complicated problems, design/code reviews, theoretical wisdom

UNAVCO, Inc. Boulder, CO
Contractor May, 2003 – Jan, 2004

- Implemented *Jules Verne Voyager Jr.* and other Earth science web map tools

Education

University of Colorado Boulder, CO
Master of Science – Computer Science Aug, 2001 – Dec, 2003

Bachelor of Science With Distinction – Computer Science Aug, 1998 – Dec, 2003

- GPA 3.8 out of 4.0, minor in philosophy
- Leader in engineering, philosophy, spiritual, and political student groups

Activities and Hobbies

- Chapter leader, Citizen's Climate Lobby: non-partisan advocacy for climate change legislation
- Black Rock Ranger, Burning Man: public safety, peer counseling, community building, emergency comms
- College activities: resident advisor, Tau Beta Pi honor society, philosophy club, ACM programming contests
- Public talks about org charts, monetary theory, carbon pricing, and moral foundations
- Homebrewer, photographer, game player, radio amateur, geographer, traveler, wearer of many hats