

Mission Statement

My mission is to write software which helps humanity. I want to work with smart and creative people on projects which are worth doing right, solve important problems, and improve the computer's role as a cognitive tool. I am especially interested in geography, human language, cognitive science, user interfaces, and data accessibility.

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 and JavaScript. In my quest for the right balance between fluid English and mathematical formalism I've used Ruby, Python, Perl, C, bash, and PHP and dabbled in many others from Go to Lisp to Julia to TypeScript.
- I help teams and individuals grow. I've conducted over 200 technical interviews and sit 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 Google Drive, helping hundreds of millions of users organize, share, and enjoy their files. I helped build the Drive UI, Drive Viewer and video playback, data analysis pipelines, and server infrastructure. I built a database for understanding product usage and educated stakeholders on querying it. I have served on 24/7 on call rotations to ensure availability and reliability of Drive and I work to reduce the operational load of services. I led a major migration and deletion effort of a critical legacy system serving tens of thousands of user requests per second.
- 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 presented a paper on weakness of will at the 2002 Rocky Mountain Student Philosophy Conference.
- During high school I taught a Socratic seminar course on world philosophy.
- My world view ties computer science to philosophy and psychology. I am fascinated by artificial intelligence, cognitive science, linguistics, limits of formal systems, self-organization, and societal use of computers.

Generally Diverse Individual

- I literally and figuratively wear many hats in organizations, providing insight and effort wherever needed.
- 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, the national engineering honor society; and as organizer of spiritual and political student groups.
- I volunteer with Citizens' Climate Lobby to build broad political support for climate change solutions.
- 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 love language. I play with English idioms, speak passable Spanish, and dabble in Chinese.
- I connect with the world around me through photography, homebrew, camping, bicycling, and playing games.

Summary

- My mission is to write software which helps humanity and to learn from smart, creative people
- Interests include geography, human languages, cognition, user experience, and data visualization
- Bachelor's and Master's Degrees in computer science, minor in philosophy
- Experienced with Java, JavaScript, HTML, CSS, SQL, NoSQL, Linux, big data, text processing
- Familiar with C, C++, Go, Julia, Lisp, Perl, PHP, Python, Ruby, and many open source tools

Experience

Google, Inc. Boulder, CO
Staff Software Engineer Nov, 2009 – Present

- Google Drive: Tools to store, organize, and share files; Java and JavaScript
- Worked on Drive UI, Drive Viewer, video playback, downloads, 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 ~ 200 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
- “Go-to-guy” 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
- Perl/CGI server, HTML/CSS/JavaScript client

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; president of Philosophy Club 2000–2001
- Leader in engineering, spiritual, and political student groups

Activities and Hobbies

- Black Rock Ranger, Burning Man, 2009–present, public safety and peer counseling
- Resident Advisor, University of Colorado Department of Housing, 2001–2003
- Vice President, Tau Beta Pi engineering honor society, Colorado Beta chapter, 2002–2003
- Volunteer, Citizen's Climate Lobby, non-partisan advocacy for climate change solutions
- English master, intermediate Spanish speaker, Chinese novice, amateur linguist
- Homebrewer, digital photographer, game player, world traveler, wearer of many hats