Annie Ritch

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Full-Stack Software Engineer

I am a full-stack web developer with a background in the earth and environmental sciences, and I hope to utilize my skills for a company whose mission is aligned with using technology in ways that can help promote sustainability. I thrive in small-team environments with a diversity of active projects and opportunities to learn new technologies.

Technical Skills

Proficient: Javascript, Ruby, React/Redux, Rails, Git, SQL, HTML, CSS/Stylus
Familiar: Node.js/Express, AngularJS, jQuery, AWS, Python, R
Past Exposure: MongoDB/Mongoose, Django, Flask, Socket.io, iOS, Swift

Professional Experience

Software Engineer, Oh My Green | *Burlingame, CA* | March, 2017 - present
Full-stack development using React and Rails to build internal and customer-facing applications for a company providing healthy snacks, beverages, and catering services to corporate offices.

- Re-built interactive, responsive customer-facing analytics platform with loading times decreased by a factor of 5
- Constructed customer-facing rating system to improve demand forecasts for catering services
- Developed a new platform with multiple internal tools to improve food product management, to automate and streamline the process of ordering product from vendors, to manage client accounts, and to generate catering menus with templated signage
- Re-worked backend to track daily per-person budget and headcount histories for both microkitchen and catering clients for better transparency in accounting and client-facing analytics
- Worked with accounting team to automate invoicing process

Graduate Student Researcher | *Stanford University, Department of Earth System Science* | 2014 – 2016
Utilized reanalysis data, HYSPLIT back-trajectory modeling, and reactive transport modeling to track the stable isotopes of vapor and precipitation along a storm track. Combined lake modeling with isotope mass balance to determine precipitation recycling ratios. Field experience collecting water and carbonate in the Zaysan Basin in Kazakhstan.

- Developed algorithm to efficiently manipulate 90GB climate dataset
- Improved lake model estimates by 20% by deriving new lake level-isotope relationship
- Co-instructed a field course for undergraduates in the Rocky Mountains and a proposal-writing course for graduate students

Education

Stanford University | Stanford, CA
M.S., Earth System Science | 4.0 GPA | June, 2016

California Institute of Technology | Pasadena, CA
B.S. with Honors, Geochemistry | 3.6 GPA | June, 2014

Fun Web Development Projects

eyeChat | github.com/ajritch/eyeChat

- Multi-room chatting application in which users can communicate with just the blinking of their eyes
- Inspired by individuals affected by locked-in syndrome
- Two-person team; I wrote the backend and most of the user interface logic
- HTML5, CSS3, jQuery, Socket.io, AngularJS, Mongoose, Express, Node.js, headtrackr.js, blink-detect

Halo | github.com/ajritch/halo

- Facial recognition application that can be used to identify at-risk homeless individuals
- Built in 24 hours for the Hack Homelessness Hackathon in San Jose (September, 2016)
- Four-person team; I wrote the entirety of the iOS application and assisted with the MEAN backend
- Swift 2, iOS 9, HTML5, CSS3, MEAN stack, Kairos Facial Recognition API