Annie Ritch

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Full-Stack Software Engineer

I am a full-stack web developer and recent graduate from Coding Dojo, an immersive web development bootcamp in San Jose, CA. Having recently transitioned from pursuing a career in academia, I have a background working in an environment of fast learning, adaptability, collaboration, independence, effective communication, and high standards of excellence.

Technical Skills

Languages: JavaScript, Python, Swift, R
Front End: HTML5, CSS3, jQuery, Bootstrap, AngularJS, AJAX, HTTP Request/Response, iOS
Back End: Node.js, Express, Socket.io, MongoDB/Mongoose, MySQL, Flask
Other: RESTful Architecture, Git, Github, MVC, AWS

Web Development Projects

eyeChat | https://eyeChat.ajritch.com

- 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 back-end and most of the user interface logic
- HTML5, CSS3, jQuery, JavaScript, AngularJS, Mongoose, Express, Node.js, headtrackr.js, blink-detect

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

Outdoorsy | http://outdoorsy.ajritch.com

- Web application where users can search, share advice, and get directions for any outdoor location in the world
- Extensive AJAX use allows for map manipulation without page refreshes
- HTML5, CSS3, jQuery, Python, JavaScript, Flask, MySQL, Google Maps API, Open Weather Map API

Professional Experience

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

Coding Dojo | San Jose, CA
Full-Stack Web Development Program | Double Black Belt | September, 2016

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