Tyler Ketron

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Experience

Software Engineer (Intern) – *Tunelark*
August 2018 - September 2018, San Francisco, CA

⇒ Collaborated on a team to build a feature-rich classroom and assignments dashboard within a **React** and **Ruby on Rails** codebase.
⇒ Implemented a new feature enabling teachers to quickly add students and automatically generate login credentials via a PDF download, saving time for teachers and students.
⇒ Modified **PostgreSQL** database and **Rails** backend to allow users to sign up with a username in addition to an email, enabling a core demographic of users without an email address to access the app.
⇒ Updated existing tests and added unit and integration tests using **RSpec** and **Jasmine/Enzyme** to cover newly built features; increased test coverage by 12.5%.

Hydrogeologist – *Haley & Aldrich*
June 2013 - May 2018, Oakland, CA

⇒ Constructed and interpreted numerous groundwater flow and transport simulations in support of a variety of litigation, construction, and mining projects; results were used by clients and regulatory agencies.
⇒ Utilized spatial and analytical data to create conceptual models and innovative visualizations, enabling my team to communicate complex technical topics to laypeople.
⇒ Wrote **Python** scripts to prepare large datasets for input into numerical models and to visualize results, allowing for rapid communication and iteration with clients as project needs evolved.
⇒ Designed aquifer testing programs, summarized the results, and provided recommendations for dewatering and remediation projects.
⇒ Managed multiple field sampling events throughout California; responsibilities included obtaining approval and permits from regulatory agencies, designing sampling programs and procedures, supervising and training junior staff, and coordinating subcontractors.
⇒ Drafted and reviewed technical reports, work plans, and proposals.

Scientific Programmer – *U.S. Environmental Protection Agency*
July 2011 - June 2013, San Francisco, CA

⇒ Developed a groundwater flow and transport model on a GIS platform, enabling users to quickly estimate potential environmental impacts.
⇒ Coded modules for solutions to flow and source dissolution equations in **Java**, abstracting calculations and simplifying application code.
⇒ Formulated and refined model objectives to ensure value for a broad range of users.

Research Assistant – *NASA Ames Research Center*
June 2010 - March 2011, Mountain View, CA

⇒ Performed multidisciplinary research on sediment dynamics in San Francisco Bay salt ponds in support of restoration efforts.
⇒ Programmed scripts in **MATLAB** and trained team members on their use, reducing the time spent on manual data processing.

Education

Rithm School, San Francisco, CA
May 2018 - September 2018
⇒ 17-week intensive web-development program

Stanford University, 2011
M.S. Earth Systems
⇒ Concentration in numerical modeling and water resources engineering

Stanford University, 2010
B.S. Earth Systems
⇒ Interdisciplinary study in environmental engineering, science, and technology

Skills

JavaScript (ES6) // Python // Ruby

Node.js // Express // React // Redux
Flask // Rails

SQL // CSS // Sass // HTML // jQuery
Bootstrap

Publications/Presentations

Ketron, T., Chu J., Einarson, M. 2015. **An Improved Modeling Approach to Evaluate the Performance of an Open-Loop Groundwater Heat Pump System**. Poster session presented at the *Groundwater Resources Association of California Annual Meeting*.

Newcomer, M., Kuss, A., Ketron, T., Remar, A., Choksi, V., and Skiles, J. 2013. **Estuarine sediment deposition during wetland restoration: A GIS and remote sensing modeling approach.** *Geocarto International*: 1-17.

Ketron, Tyler. 2011. **Modeling Sediment Deposition for Predicting Marsh Habitat Development.** Presentation at the *American Society for Photogrammetry & Remote Sensing Annual Conference.*