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## Technical Skills

**Like:**     ecmascript-harmony, jefri, unix, angularjs, testing

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## Experience

### **Software Engineer (Consultant)** – Data Online

*June 2014 - August 2014*

node.js, socket.io, redis, angularjs

Spent two months consulting for Data Online, a manufacturing firm in New Jersey. Architected and built a scalable, real-time monitoring platform for various client consumables, and trained the team in building Single Page Applications (SPAs) with AngularJS.

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### **Software Architect** – Novus Partners Inc

*October 2013 - June 2014*

angularjs, node.js, gruntjs, scala

As head of Front End Development at Novus Partners, I lead a team of four developers (including myself) in a complete front-end rewrite. Our previous platform was a brittle Scala Server Pages implementation. After releasing this rewrite, our slick & fast AngularJS frontend has become decoupled from the Scala backend, allowing both services to become much more focused and performant. We also build and maintain the NVD3 open-source charting library. I have led an ongoing effort to refactor the original prototype codebase into a maintainable, extensible, and testable library that will serve front-end charting for years to come.

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### **Software Engineer** – The New York Times

*July 2012 - October 2013*

nodejs, coffeescript, git

Full-stack developer of the NYT5 rebuild team, rebuilding the nytimes.com property from the ground up. The core online presence of the New York Times handles 45 million unique monthly visitors. Core member of the Prototype team, building and testing potential new features for the proto.nytimes.com domain. Responsible for the backend stack, including Node servers for data management and AB testing, as well as a variety of systems administration to handle our traffic. Invited to speak on emerging technologies to internal development groups, as well as on behalf of the Times at regional college tech events and tech meetups. Internal git guru.

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### **Software Engineer** – Potomac Fusion, inc

*September 2011 - June 2012*

java, javascript, owf, synapse

After a week at PFI, I was asked to join a new internal team developing PFI's core data handling framework. Synapse is a tool in the Government Open Source Software realm designed to bring large-scale data handling and visualization to the browser. Our technology handles tens to hundreds of thousands of records shared between discreet OWF widgets, small iframe applications in a shared web desktop. These widgets provide a range of visualizations and tools for intelligence analysts to make the most use of the disparate data sources streaming in from the modern threat space, enabling them to make decisions that save lives of both military troops and civilians around the world.

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### **Software & Technology Consultant** – Franken Technologies

*June 2011 - Current*

unix, javascript, java, .net

Through Franken Technologies, I provide a variety of software and technology consulting services. I continue to enjoy a close and profitable working relationship with Entre Technology services, joining their excellence in the information technology world with my software development and engineering expertise.

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### **Chief Software Architect** – Design Delegates

*October 2010 - July 2011*

javascript, jefri, php, crosslight, kohana, sqlite, linux

Responsible for the entire technology stack at a start-up software development company. Accomplishments include developing several platforms to facilitate web programming, implementing a continuous integration server across several languages and frameworks, and architecting several medium-scale projects with a team of five developers and designers.

Our largest project was a field agent tracking system, responsible for maintaining scheduling and routing information for hundreds of in-store field marketing agents in Australia. The project combined a variety of technologies, including a scalable PHP backend, dynamic mobile frontend, and extensive reporting capabilities.

In the course of the project, we developed JEFRI, a Javascript Entity Framework to facilitate our mobile development work.

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### **Software Developer** – Entre Technology Services, LLC

*September 2007 - September 2010*

java, .net, entity-framework, linux

I managed medium-scale software projects for several Montana companies, including the Stillwater Mining Company, Town Pump of Montana, and Crowley Fleck Law Firm. Developed and implemented a unique solution to e-discovery motions. Projects included writing OSHA tracking software, modules for inventory management software, and support on web development for several clients.

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## Education

### **B.S. Computer Science**—Rocky Mountain College

2006 - 2011

Earned two Bachelors of Science (Computer Science, Mathematics) in five years. Worked on several software development projects with other students in the CS department, including tools to help computational biology research students perform genome analysis on Rocky's local computing cluster.

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### **B.S. Mathematics**—Rocky Mountain College

2007 - 2011

Tutored for three years. Brought a group of math majors together for regular study sessions, helping all of us work through not just our homework, but the big ideas on topics from philosophy to religion to science, and how they fit together with the material we studied.

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## Projects & Interests

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### **Stack Overflow**—<http://stackoverflow.com/users/240358>

December 2009 - Current

Written 115 answers. Active in javascript, node.js, debugging, gruntjs, php and 4 other tags.

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### **GitHub - MultiMines**—<https://github.com/DavidSouther/MultiMines>

May 2014 - June 2014

javascript, angularjs, socket.io, node.js

HTML5 multiplayer Minesweeper

Creator

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### **GitHub - qcumberbatch**—<https://github.com/DavidSouther/qcumberbatch>

October 2013 - June 2014

coffeescript

Integration wrapper between qcumber and webdriverjs.

Creator.

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### **GitHub - tdd-angular**—<https://github.com/DavidSouther/tdd-angular>

August 2013 - June 2014

coffeescript

A commented discussion of Harry Pierceval's Test Driven Development in Python, but using Angular and Node. Tutorial online at <http://davidsouther.github.io/tdd-angular/>

Author, developer, educator.

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### **GitHub - jefri**—<https://github.com/jefri/jefri>

December 2012 - January 2013

coffeescript, rest, node.js

JEFRI is an entity framework, a complete data abstraction specification for an organization's development efforts.

Creator, lead developer. I never had enough time to get it to 1.0, but it came along quite well. Then, "they" released <http://raml.org/>

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### **GitHub - grunt-recuse**—<https://github.com/DavidSouther/grunt-recuse>

October 2013 - December 2013

coffeescript, grunt

One of several libraries to streamline Grunt usage. grunt-recuse allows teams to separate concerns in their Gruntfiles.

Creator.

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### **GitHub - s3age**—<https://github.com/DavidSouther/s3age>

June 2013 - February 2014

S3age - THREEjs Stage

Created a streamlined declarative API for quickly building THREEjs stages. Also developed many good practices for keeping 3d code clean and testable.

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### **UAG TEALS Scavenger Hunt**—<http://teals.souther.co/>

angularjs, node.js, mongodb

Programming Scavenger Hunt for a high-school intro to Python course. Allows instructors to manage available scavenger hunts, allows students to submit and edit their programs, and manages grading & raffle tickets.

Instructor for the TEALS course at UAGateway in NYC. Suggested scavenger hunt idea; built the scavenger hunt software.