

## Work

### The Muse - *Chief Technology Officer*

8/2012 - 1/2018

- Scaled engineering team from 2 to 27, playing an active role in recruitment and hiring
- Managed & lead the team from the seed round through series B
- Established engineering best practices and norms, such as career ladders, remote work policies, hack days, product groups, and "agile-ish" workflows
- Gave talks and wrote articles to promote The Muse as a great place to work
- Acted as the first fullstack engineer, directly contributing:
  - The initial web application, built with python/tornado, go and coffeescript
  - Continued iterations of the product and backend architecture to scale from thousands to millions of MUVs
  - ETLs for extracting and normalizing tens of thousands of job descriptions from clients across over a dozen applicant tracking systems
  - A merger of two disparate platforms, contributing a substantial increase in site and SEO performance
  - Open sourcing of various components, including a web framework, a large asset filesystem for git, and several tools for integration testing and increasing site performance
- As a manager and leader, oversaw and coordinated with various teams and engineers to help create:
  - Many continued product, performance and SEO-related iterations of the site
  - An engine for consuming and indexing millions of daily events, using go, redshift, and athena
  - An incremental migration from heroku to AWS
  - A migration from a monolithic architecture to microservices
  - A rewrite of the middle-tier from coffeescript/mithril to typescript/react

### Docker - *Software Engineer*

2/2012 - 7/2012

- Designed an RPC framework
- Experimented with abstractions that would allow for server-less applications

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## Internships

### Google - *Associate Product Manager Intern*

5/2011 - 8/2011

- Redesigned YouTube's digest emails, increasing CTR by 100%
- Created a platform for increasing partner video viewership by 60%
- Designed an alternative search interface for YouTube on tablet devices

### TransLoc - *Contractor*

2/2010 - 8/2010

- Created a novel algorithm to filter noise in GPS data
- Architected a tool for debugging real-time geospatial information
- Designed a framework for interacting with SMS interfaces

### IBM - *Various Internships*

5/2006 - 7/2009

- Conceptualized and implemented a new search relevancy algorithm
- Filed a patent on geospatial security policies (application #12647681)
- Developed software that demonstrates IBM end-to-end solutions in a virtual immersive environment
- Leveraged Macromedia Flex to create a cross-platform virtual immersion software development kit

### Microsoft adCenter - *Software Developer Intern*

5/2008 - 7/2008

- Dropped the amount of time required to conduct post-hoc analysis of ad relevancy algorithms by nearly an order of magnitude, by converting sequential algorithms to parallel
- Implemented a new ad relevancy algorithm using map/reduce
- Designed reports to provide a statistical analysis of ad relevancy algorithms

- Teaching assistant for CSC116: Introduction to Computer Science
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## Research

### The University of North Carolina at Chapel Hill

8/2010 - 12/2011

- Designed and implemented a modern version of generative communication, which allows for significantly increased productivity in designing distributed systems
- Performed graph analysis on citation graphs to find academically influential institutions, departments and individuals

### North Carolina State University

8/2009 - 12/2009

- Created a RESTful web service for delivering real-time recommendations using a modified version of the TANGENT algorithm
  - Designed an open source thin web framework and key-value store
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## Education

### The University of North Carolina at Chapel Hill (2010 - 2011)

M.S., Computer Science; No GPA

### North Carolina State University (2005 - 2009)

B.S., Computer Science; 3.55 GPA; Magna Cum Laude

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## Open Source

Active open source contributor. Please see my github profile at: <https://github.com/ysimonson>.

A selection of projects I've contributed to:

- tornado: A python web framework and asynchronous networking library  
<http://github.com/facebook/tornado>
- servo: An experimental web browser by Mozilla, written in rust.  
<https://github.com/servo/servo>
- cargo: The rust package manager  
<https://github.com/rust-lang/cargo>
- clippy: The rust linter  
<https://github.com/rust-lang-nursery/rust-clippy>

A selection of projects I've managed:

- IndraDB: a graph database written in rust  
<https://github.com/indradb/indradb>
  - zerorpc-node: A node.js implementation of ZeroRPC  
<https://github.com/orpc/zerorpc-node>
  - git-fit: Handling large assets in git with ease  
<https://github.com/dailymuse/git-fit>
  - oz: Middleware and scaffolding for tornado-based web applications  
<https://github.com/dailymuse/oz>
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## Art

Maker of small scale interactive art pieces. Please see further details at: <http://yusufsimonson.com/works>

- B. Raisin Ned: A robotic fortune teller, basing fortunes off your current emotional states (as measured by an EEG.)
  - The Organ: A pentatonic scale musical organ activated by capacitive touch sensors.
  - Blinkies of Life: A wearable device running a Game of Life-esque simulation.
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