

Education

University of Pennsylvania, Philadelphia, PA

- B.S.E. and M.S.E. in Computer Science with minor in Entrepreneurship, May 2015
- Cumulative GPA 3.73; Major GPA 3.81
- Relevant Coursework: Software Engineering, Relational Databases, Discrete Math, Data Structures & Algorithms, Computer Architecture, Engineering Entrepreneurship, Complexity and Automata, Computer Organization and Design, Java & OCaml, Linear Algebra, Calculus III, Probability

Work Experience

Software Development Intern, Edmodo (May 2014—August 2014)

- Designed, built, and deployed the current profile picture uploader in production, replacing the old version and adding a customizable avatar creator to increase user engagement.
- Built an extendable API from scratch in Golang, including a lightweight server framework featuring concurrency in handling image creation, resizing, and uploading to S3.
- Ran A/B tests on the avatar project and ramped up from 5 to 100% of users in a week. The page now has over 6 million pageviews and hits 2500 concurrent users every day.
- Implemented security and privacy features in the avatar creator for a network of over 30 million students.
- Worked closely with product, design, marketing, and support to bring the creator to life before an annual conference attended by over 40,000 teachers.
- Used GoLang and Rails to develop the logic and API endpoints for custom badges that teachers award to students in order to improve gamification in the product.

Software Development Intern, Ooyala (May 2013—August 2013)

- Worked on the Ops & Infrastructure team to modify and bring up an open source tool, MAAS, which automated the booting up and distribution of baremetal servers in a data center.
- Closely associated with and helped data services by optimizing the process of reimaging and rebooting Cassandra servers.
- Updated the base image and installer by increasing modularity and merging builds for EC2 AMIs and baremetal images into one tool.
- Worked closely with developers at Canonical to contribute changes upstream and into the open-source community. Extended MAAS to work with custom images and added the ability to upload kernels to the server through UI.

Teaching Assistant, CIS 196 (January 2013—June 2013)

- Held office hours weekly to give advice and help with homework assignments.
- Reviewed and graded assignments for a Ruby on Rails class of 40 students, as well as a final webapp project of their choice. Focused on style, test-driven development, and Rails conventions.

Software Developer, Apprennet LLC (Sept. 2012—Feb. 2013)

- NSF-funded startup providing an educational platform for MOOCs and video exchange capabilities.
- Used Ruby on Rails to set up an internal GitLab and incorporated Chef to automate configuration of servers and auto-scaling of web applications.

Projects

Mealmapper, a food suggestion app using a set of data from the Yelp API (March 2013—May 2013)

- Built on top of a Rails framework using AJAX API calls to populate a map with a set of matching restaurants.
- Pathing algorithm determines the highest quality food on a trip given start and end points.
- Uses natural language processing in Python to grade different foods on a restaurant's menu based on word inflection in review context.

Safelet.us, a hackathon project for locating high price-to-safety sublets around universities (Sept. 14-16 2012)

- Implemented a web crawler in Ruby to scrape data from Craigslist and SpotCrime.
- Visualized a density map and graphed occurrence of crimes in an area using Javascript, then plotted available subleases using Google Maps API to track danger levels.

WordCraft, a 3D Flash and Android game developed using the Unity Engine (March 2012—April 2012)

- Scripted in Javascript and C#, features include a full dictionary search and multiple powerups.
- Multiple play modes, including a level system, tutorial, and endless. Released on Kongregate as of April 2012.

Technical Experience

Programming Languages and Frameworks

- GoLang, Ruby, Python, Java, Scala, C++, C#, Rails, Django, Play | HTML, CSS, JavaScript, jQuery

Other Technology and Tools

- AWS including S3, RDS, EC2, and SimpleDB, Hadoop, Cassandra, Spark, Git, Agile Development

Open-source contributor to Ubuntu MAAS and other Canonical projects