Boyang Niu

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Education

University of Pennsylvania, May 2015 (3.31) ***Philadelphia, PA***
Master of Science in Engineering, Computer Science
University of Pennsylvania, May 2015 (3.74) ***Philadelphia, PA***
Bachelor of Science in Engineering, Computer Science

Work Experience

Software Engineer (IC2), Brightroll acquired by Yahoo! Inc. (June 2015—) ***San Francisco, CA***

- Improved performance of demand-side platform core backend APIs written in both Scala and RoR, leading to latency improvements of the user-facing console.
- Improved data ingestion performance for comScore and Nielsen audience data by an order of magnitude, replacing malfunctioning contractor codebase by rewriting syncing services in Scala using cleaner API design and concurrent execution.
- Migrated search services off of older Elixir API and onto a more stable and performant Play service, enabling caching of large elastic search responses to speed up client-side requests.
- Upgraded integration with Google AdX by improving response times and implementing better error handling and alerting.
- Created product support dashboard to monitor the staleness of audience data from third party providers.

Software Development Intern, Edmodo (May 2014—August 2014) ***San Mateo, CA***

- Designed, built, and deployed the current profile picture uploader and avatar creation system for Edmodo.com, used by more than 1 million teachers and students per week.
- Built an extensible API from scratch in Golang, including a lightweight server framework featuring concurrency to handle image creation and uploads using AWS.
- Implemented security and privacy features by integrating with an internal OAuth system to create a robust API for use by over 30 million students and third-party developers.
- Developed an additional API for achievement badges to unlock new avatar assets, increasing user engagement and adding gamification.

Software Development Intern, Ooyala (May 2013—August 2013) ***Mountain View, CA***

- Helped optimize the process of reimaging Cassandra servers for the third largest Cassandra cluster in the world at the time.
- Gained experience with systems level concepts, from modification of the Linux kernel to PXE boot and IPMI.
- Improved cluster management efficiency for the DevOps team by providing a clean UI to view/edit node status, rendering old bash scripts obsolete.
- Extended MAAS to work with custom images and added the ability to upload kernels to the server through UI—worked with developers at Canonical to open-source changes.

Teaching Assistant, Ruby on Rails & Computer Architecture (January 2013—January 2014) ***Philadelphia, PA***

- Held office hours weekly to give advice and help with homework assignments.
- Reviewed assignments and projects for a Ruby on Rails class of 40 students, as well as a Verilog/HDL-based processor architecture class of 110.

Projects

Vroom, a Jekyll-like static website generator written in Golang (March 2015—)

- Uses the Go template engine to render pages, additionally allows for user-defined metadata and arbitrary variable binding in templates during rendering.
- Recursively parses directories, creating a tree structure that uses the specificity of a directory to map metadata keys to values. Writes the generated pages in a directory structure identical to the template.
- Usable with a single command, writes files and includes a lightweight server that displays the rendered product locally.

ShengJi, a popular Chinese card game built in nodeJS using React.js and flux. (December 2014—)

- Uses Codeship for CI and deployment, jshint and jslint to ensure style practices, and TDD.
- A learning experience working with client libraries and becoming familiar with websockets through socket.io.
- Uses React to render views and follows the Facebook flux client architecture to push data through to the user.

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 NTLK in Python to grade different foods on a restaurant's menu based on word inflection in review context.

Technical Experience

Programming Languages and Frameworks

- Scala, GoLang, Ruby, Python, nodeJS | Rails, Play, HTML, CSS, JavaScript, jQuery

Other Technology and Tools

- ElasticSearch, AWS, Hadoop, Cassandra, Spark, Git