Sandy Harvie

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Education

Brown University
Providence, RI

B.S. Computer Science — *Expected May 2019*

- *Current GPA*: 3.88 / 4.0
- *Relevant Coursework*: Distributed Systems, Computer Systems, Data Structures and Algorithms, Database Management Systems, Software Engineering, Discrete Structures and Probability, Object-Oriented Programming, User Interfaces and User Experience

Skills

Programming Languages Java, C, JavaScript, Go, SQL, Python, HTML, CSS

Experience

Blend
San Francisco, CA

Software Engineering Intern — *Summer 2017*

- Worked as a software engineer on the Lending Platform and New Business Initiatives teams
- Developed and shipped support for HELOCs, the first new loan type to be added to Blend's platform
- Contributed to Blend's shift to a multi-tenant deployment architecture
- Refactored Blend's use of Amazon SQS to allow for the consolidation of low-priority workers and optimized its data purge job
- Developed experience with Node.js, MongoDB, AngularJS, and React

Brown University Department of Computer Science
Providence, RI

Teaching Assistant - CSCI0330 — *Fall 2017*

- Assist Professor Thomas Doeppner in instructing and administering CSCI0330: Introduction to Computer Systems
- Topics covered include manual memory management, assembly language, and multithreaded programming

Teaching Assistant - CSCI0150 — *Fall 2016*

- Assisted Professor Andy van Dam in instructing and administering CSCI0150: Introduction to Objected-Oriented Programming and Computer Science
- Topics covered include object-oriented design, Java programming, and fundamental data structures and algorithms

NCTA - The Internet & Television Association
Washington, DC

Software Engineering Intern — *Summer 2016*

- Worked as a software engineer on NCTA's RIPE Atlas Internet Measurement project
- Developed an internal web application composed of interactive visualizations of streaming data for network performance, outages, and interconnection
- Presented application to representatives from Comcast, Verizon, and CenturyLink
- Developed experience with JavaScript, jQuery, D3.js, HTML, CSS, and PHP

Projects

PuddleStore Designed and developed a fault-tolerant, strongly consistent distributed file system. Based on the OceanStore project and written in Go, it uses Apache ZooKeeper as a membership server, Tapestry to store data blocks, and the Raft consensus algorithm to commit changes.

Maps Implemented a web mapping service with real-time traffic updates, similar to Google Maps. Written from scratch in Java, it uses a *k*-d Tree for nearest neighbor searches, A* for routing, and autocorrect to suggest locations. Extensive caching is utilized to allow for quick routing and smooth panning and zooming.

Interests

Surfing, snowboarding, fly fishing