

About Me

Software Engineer. Obsessed with learning, eagerly embraces challenges, and values thoroughness and efficiency. Excellent communicator, fast learner, and team player. Drummer, musician, reader, writer, and generally enthusiastic about life.

Work Experience

Software Engineer, Austin Sigma; Houston, TX – *January 2016 – Present*

Secure File Sharing Platform

- One of three engineers building secure cloud-based file sharing platform using React.js, Redux, Electron, socket.io, node.js, MongoDB stack. Assisted in architecting database schema and client-side
- Implemented entire end-to-end encryption and security layer, including pbkdf2, RSA, and symmetric key encryption. Assisted in design of encryption scheme, gaining strong familiarity with modern encryption techniques.
- Built custom search feature with pre-generated filters, autocomplete, full-text search of encrypted documents, and responsive interface. In tests with 10k+ documents, indexes all metadata in under 20ms.

Scalability Test Framework

- Multithreaded load-testing framework implemented in C++; data post-processing and analysis in Ruby/R.
- 8000 requests/sec per simulator instance, requesting API routes randomly with adjustable frequency designed to simulate high-volume user traffic.
- Logged latency time of each request, producing data sets of 200 million+ data points.
- Framework piped data into Ruby and R scripts, producing meaningful metrics for assessing the effectiveness of our node.js backend in practice, resulting in 20% speedup.

Software Team Intern, Coca-Cola Freestyle; Atlanta, GA – *Summer 2014, Summer 2015*

Test Pour Automation Framework

- Freestyle: Coke's cutting-edge semi-automated soda fountain.
- Built a framework for automating user input to the machine, i.e. touch screen actions and timed pours.
- Python scripts execute user actions; HTML/CSS/JavaScript interface for QA testers to efficiently run overnight tests on up to 30 Freestyle machines simultaneously.

Education

B.S. Computer Science, The University of Georgia, Athens, GA – 2011–2015

Relevant Coursework

- Software Engineering, Computer Architecture, Web Programming, A.I. and the Web, Data Mining, Genetic Algorithms, Computer Networks, Data Structures, Theory of Computation, Introduction to Higher Math
- Additional: Three semesters of Japanese, drummer in three different rock bands with fellow students.

Skills

Languages: C++, JavaScript, Ruby, Python, Java, C, R
Tools & Frameworks: bash/zsh, React.js, Node.js, HTML5/CSS3, MongoDB, SQL, Vim, UNIX, OSX, git, Java Servlets/JSP, nginx