Katie Siegel

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EDUCATION

Massachusetts Institute of Technology (MIT) 2012-present

M.Eng. Computer Science w/ conc. in computer systems, expected June 2016

S.B. Computer Science and Engineering, expected June 2016 GPA: 5.0/5.0

- Eta Kappa Nu (HKN) honors society member and exec. board member.

SKILLS

Programming Languages C, C++, Go, HTML/CSS, Java, Javascript, Objective C, Python, Ruby, Swift

Frameworks and Tools Flask, Hadoop, iOS, LaTeX, node.js, Pebble, SQL, Ruby on Rails

Selected coursework Advanced Data Structures, Algorithms, Computer Systems, Database Systems, Distributed Systems, Machine Learning, Performance Engineering of Software Systems, Statistics, Web Software Studio

EXPERIENCE

MemSQL | Intern | Query Execution Infrastructure team San Francisco | June-Aug 2015

- Optimized hash joins by implementing and integrating a grace hash table.
- Implemented spilling to disk during hash joins using a custom allocator.
- Conducted performance analysis of query execution optimization strategies.
- Fixed issues involving column store query execution.

Dropbox | Intern | Mailbox iOS team San Francisco | June-Aug 2014

- Implemented Bluetooth keyboard integration in the Mailbox iOS app.
- Designed and prototyped an analytics dashboard displaying Mailbox iOS usage.
- Won Hack Week team award for a feature adding write-only shared folders for content collection.

Square | Intern | Information Security team San Francisco | June-Aug 2013

- Developed an internal Rails site that reads & displays security data from Hadoop.
- Added elastic search and other features to Rails internationalization software.

RESEARCH AND SELECTED PROJECTS

H-Store Implementation of replication strategies in H-Store, a research effort in the MIT Databases Lab.

Zauberflöte Distributed peer-to-peer content delivery system utilizing WebRTC and a BitTorrent-like tracker.

SkipChat A secure, distributed, bluetooth peer-to-peer messaging service that hops network discontinuities.

- Top 10 at MHacks V

nunchuck.js Open-source library for real-time hardware data synchronization between mobile and desktop browsers.

- 2nd place at YCHacks

EDUvote Lecture planning software that facilitates real-time feedback to in-class questions via text messaging.

- First place in 6.170, MIT's Software Studio class

TEACHING

6.170: Software Studio | Teaching Assistant fall 2014, 2015

- Software engineering course covering design & implementation of medium-scale software systems using node.js.
- Taught recitations, coached teams through design and development of final projects, and graded assignments.

6.042: Math for Computer Science | Lab Assistant spring 2013

- Discrete mathematics course for computer science majors.
- Led problem solving sessions for a section of students and graded coursework.

LEADERSHIP

HackMIT 2013-2014

Directed MIT's largest hackathon, raising $300k+ in sponsorship and organizing logistics for 1000+ attendees.