KEN LUY

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Education

New York University

3.14 GPA M.S. Computer Science, May 2016
Course:

Distributed Systems
- Implemented scalable NoSQL key-value databases using the golang programming language

University of California, Berkeley

3.01 GPA B.S. Bioengineering, May 2012
Courses:

Operating Systems
- Added Java code to a distributed NoSQL database that used the 2 Phase Commit protocol

Great Ideas in Computer Architecture
- Used C, OpenMP, and Intel AVX to maximize matrix multiplication speed. Implemented a MIPS CPU.

Experience

OpenText, Software Engineer (March 2017 to Present); Foster City, CA

- Worked on content management systems (websites that are used to make websites).
- Created a redirect service that redirects users to a service that contains help documentation. Designed a microservice and implemented it with Java. The microservice is a Java servlet that runs on JBoss. The servlet is a non-REST web service; I didn't make it RESTful because the data were not entity based. The help pages were organized hierarchically as opposed to being entity based.

HyTrust, Software Engineering Intern (Jun 2016 to Sep 2016); Mountain View, CA

- Used Python to implement programs that send summary emails to customers.
- Was part of a mission critical team that serve many government agencies and financial service companies: https://www.hytrust.com/solutions/data-sovereignty/

E*TRADE Financial, Software Engineer (Jul 2012 to Aug 2014); Menlo Park, CA

- Worked on the Fraud Prevention team and made programs that allow fraud analysts to visualize data.
- Used Python to parse log files, generate JSON objects, and generate interactive D3.js visualizations.
- Created a web app (w/ Perl CGI as the backend) that allows fraud analysts to generate D3.js visualizations.
- The web app accesses log files from a Hadoop cluster and parses the log files.
- Implemented custom sorting and filtering features on scatter plot graphs with D3.js.

Selected Projects

Distributed NoSQL Key-Value Database:
- Created a Key-Value database that is sharded and replicated.
- The db has no single point of failure because it uses Paxos to replicate data across nodes.
- Not all nodes are responsible for all data; groups of nodes save certain shards of the data.
- Shard reorganization code allows nodes to join the db's cluster of nodes and scale horizontally.

Address Book:
- Created a Java API that could be used to create address books: tmnt-raphael.github.io/AddressBook

Languages and Technologies

Proficient: Java, Python
Exposure: JavaScript, HTML/CSS, C, Go, Git/GitHub

Awards

3rd Place, Intuit's Hackathon at UC Berkeley (2016)
Mathematics Achievement Award, Bank of America (2007)