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 Google's Go 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

HyTrust, Software Engineering Intern (Jun 2016 to Sep 2016); Mountain View, CA
  ● Worked on proxy servers that control how to route messages between VMs in different countries.
  ● Technologies used: Java, Maven, Tomcat, Spring, PostgreSQL, Git, IntelliJ.
  ● Used Java and Python to implement programs that send summary emails to customers.
  ● The Python programs use our company's email delivery API and the Jinja2 HTML templating engine.
  ● 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, replicated, and similar to Cassandra.
  ● The db uses Paxos to replicate data across nodes, which provides fault tolerance and load balancing.
  ● 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.
Connect Me:
  ● Used the Scikit-learn Python module to predict future salaries of your LinkedIn connections.
  ● Won 3rd place in Intuit's hackathon at UC Berkeley: https://github.com/andrewli/hackintoit2016
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, Flask, JavaScript, HTML/CSS, Git/GitHub
Exposure: C, Go, PostgreSQL, SQLAlchemy, bcrypt, Jinja2

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