# KEN LUY

## Education

### New York University
3.14 GPA M.S. Computer Science, May 2016
Courses:

Distributed Systems
- Implemented scalable NoSQL key-value databases using Google's Go programming language
- Implemented the job tracker of a MapReduce platform

### 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.

## Contact

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website: www.kenluy.com

## 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

### E*TRADE Financial, Software Engineer (Jul 2012 to Aug 2014); Menlo Park, CA
- Worked on the Fraud Prevention team and made tools that allowed 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 allowed fraud analysts to generate d3.js visualizations

## Selected Projects

Distributed NoSQL key-value database:
- Created a distributed db that had no single point of failure because the Paxos algorithm was used
- The db used Paxos to replicate data across nodes, which provided fault tolerance and load balancing
- Not all nodes were responsible for all data; groups of nodes saved certain shards of the data
- Shard reorganization code allowed nodes to join the db's cluster of nodes and scale horizontally

Vaccine usage predictor:
- Generated linear regression models and performed cross validation to predict vaccination usage

Connect Me:
- Used the scikit-learn API to predict future salaries of your LinkedIn connections
- Won 3rd place at Intuit's hackathon in 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

## Skills and Technologies

Programming: Java, Python, C, JavaScript, HTML, CSS, MIPS assembly language
Able to use: Mac, PC, UNIX command line

## Award

Bank of America Mathematics Achievement Award (2007)