Samuel Kim

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EDUCATION

University of California, Berkeley, Berkeley, CA — May 2016
Candidate for Bachelor of Science in Electrical Engineering and Computer Science
Cumulative GPA: 3.9/4.0
Relevant Coursework: Structure and Interpretation of Computer Programming, Data Structures, Great Ideas In Computer Architecture, Signals and Systems, Discrete Mathematics and Probability Theory, Operating Systems, Efficient Algorithms and Intractable Problems, Introduction to Artificial Intelligence, Machine Learning, Data Science, Random Processes, Databases, Computational Photography

WORK EXPERIENCE

Undergraduate Researcher, UC Berkeley — Sep 2014 – Dec 2015
- Researched current methods for string graph assembly of genomes
- Theorized a 'not-so-greedy' approach and helped proved its feasibility under sufficient conditions
- Implemented the algorithm and assembler in C++
- Produced graphs comparing n50 scores that show its optimality over current methods

Software Engineer Intern, Google — June 2015– August 2015
- Implemented a full pipeline that publishes metric predictions scores as part of the throttling system in the Ads Budgeting team
  - Wrote binaries that were run daily on jobs managed by Google's machine cluster management system to extract metric predictions and store them in protocol buffers
  - Calculated prediction scores that were tracked and published to an internal dashboard
- Explored use of machine learning tasks to update weights associated with these metric predictions

Software Engineer Intern, Google — May 2014 – August 2014
- Designed and created an activatable UI metrics tool with a simple pluggable interface for Ads applications using AngularDart
  - tool records and reports client-side page information
  - tool records Angular specific information; i.e: cache sizes, slowest digests
  - tool is used by two Google Ads applications that use AngularDart

EE20 Teaching Assistant/Reader Coordinator — Jan 2014 – May 2014
- Lead discussion and lab sections for 30 students in our lower-division Signals and Systems course
- Assisted in writing up lecture notes, discussion worksheets, and homework solutions in Latex
- Managed all of the readers who grade homeworks and provided feedback to improve the course throughout the semester

PROJECTS

- *Techcrunch Web Crawler:* Web crawled through 10000s of techcrunch articles in order to evaluate and rank the top trending tech companies, according to the contents of techcrunch (Scrapy, iPython, PageRank)
- *Showcase Lineup App:* Developed a web app that solves a basic constraint satisfaction problem (CSP) to minimize conflicts among participants in a showcase lineup (Flask, AngularJS)
- *Automated Door Lock:* Simplified access to my dorm room by programming an Arduino to scan an ID card via RFID reader. Extended the project to unlock my door via Bluetooth. (Arduino)
- *Personal Website*: Developed a personal website (AngularJS, AngularFire, HTML, CSS)

SKILLS AND AWARDS

Proficient in: Python, Java, AngularJS, Git, UNIX, HTML5
Experience in: C++, C, Dart, postgreSQL, Android, Hadoop, CSS
- HKN member at UC Berkeley
- UC Berkeley Regents' and Chancellors' Scholar, 2012
- National Merit Scholar, 2012
- National AP Scholar, 2011