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EECS student looking for full-time opportunities in software engineering **starting in Sept 2017** after **graduating in May 2017**. (All projects are available at pysim.me/projects; Resume available at pysim.me/resume.pdf)

EXPERIENCES

Rakuten Ebates, San Mateo — *Software Engineer Intern*

Jun 2017 - Aug 2017

Role: Help build recommender system and incorporate personalization through machine learning. Development mainly in Java and Spark.

Synocate, Palo Alto — *Intern*

July 2016 - Sep 2016

Role: Helped build tools to enhance college admissions experience.

Projects
1. Web scraper and browser emulator to gather essay prompts to be populated to our site (site's tech stack include Node.js, Express, Swagger, Postgresql)
2. Implemented a variant of OkCupid's matching algorithm to best match counselors with students which greatly improved customer satisfaction.
3. Content-based summer program recommender system prototype.

SELECTED PROJECTS *(* denotes in progress)*

Networking
1. PyChat* — A full-stack (MVC) webapp that supports user management, instant messaging (with WebSocket protocol on top of TCP/IP), AI chatbot and spreadsheet interpreter. Also provide a RESTful API (demo: *pychat.pysim.me*).
2. Routing— Implemented a learning switch and distance vector routing with split horizon and poisoned reverse for efficient packet forwarding.
3. WAN Optimizer — A middlebox application that optimizes the amount of transmitted data over a wide-area network.

Systems
1. DBMS* — A SQL database management system that supports CRUD & Join operations, optimized querying and concurrency control.
2. KeyValue Store — 2PC protocol for leader-follower servers coordination.
3. PageRank — Implemented the algorithm using MapReduce programming paradigm in the Spark framework which then ran on Amazon EC2.
4. PintOS — An x86 operating system framework that supports kernel threads, user programs execution and file systems.

A.I. & Machine Learning
1. AI Pacman — Trained Pacman with reinforcement learning.
2. OCR — Built a neural network that does handwritten digit recognition.
3. Sentiment Analysis — Simple NLP application (demo: *sentiment.pysim.me*).

EDUCATION I

University of California, Berkeley - *EECS*

Aug 2015 - May 2017, GPA: 3.2

Coursework *(* denotes in progress):*

1. Fundamentals: CS 61A (SICP), CS 47B (Data Strucutres), CS 70 (Discrete Math), CS 170 (Algorithms)
2. Systems: CS 61C (Computer Architecture), CS 162 (Operating System), CS 168 (Computer Networking), CS 164* (Compilers), CS 186* (Databases)
3. Data Analytics: CS C8 (Data Science), CS 188 (Artificial Intelligence), CS 189 (Machine Learning), EE 126* (Probability in EECS)

SKILLS

Programming Languages
1. Proficient: Python, Java, C/C++, SQL
2. Familiar: JavaScript, Ruby

Frameworks
1. Distributed Computing: Spark
2. Web: Flask, Express, HTML, Bootstrap CSS

Libraries:
1. Data Analytics: Sklearn, Numpy, Matplotlib
2. Testing: JUnit
3. Web: jQuery, Scrapy

EXTRACURRICULARS

Data Science Society at Berkeley Identifying factors that influence popularity of a loan on Kiva's microlending platform

CS 61A Lab Assistant Helped students with labs, homeworks and projects

Cabrillo College Tutor Provided tutoring assistance to students at the Math Learning Center

LANGUAGES

Chinese, Cantonese, Malay

EDUCATION II

Cabrillo College, Santa Cruz - *CS*

Aug 2013 - May 2015, GPA: 3.9

Completed transfer work in computer science, physics, math and economics. Built a website called cccPlan using Node.js and mongoDB at Hack UCSC 2015.