Pei Yong Sim

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

Berkeley, CA, 94704
(831) 428-3525
py@pysim.me
www.pysim.me

EXPERIENCE

Synocate, Palo Alto — *Intern*

July 2016 - Oct 2016

Role: Helped build tools to enhance college admissions experience.

Projects

1. Built a web scraper which emulates a web browser and scrapes essay prompts from various sites which are then populated on our essay tracker built using node.js and Postgresql.
2. Implemented a variant of OkCupid's matching algorithm to best match counselors with students which greatly improved customer satisfaction.
3. Automated the customer satisfaction pipeline.
4. Summer programs recommender system prototype.

EDUCATION

University of California, Berkeley — *EECS*

August 2015 - May 2017, GPA: 3.2

Completed Coursework: CS 61A (SICP), CS 47B (Data Stuctures), CS 61C (Machine Structures), CS 70 (Discrete Math), CS 162 (Operating System), CS 168 (Networking), CS 170 (Algorithms), CS 188 (Artificial Intelligence), CS 189 (Machine Learning), CS C8 (Data Science), EE 16A, EE 16B

Current Coursework: CS 186 (Databases), CS 164 (Compilers & Programming Languages), EE 126 (Probability & Random Processes)

Cabrillo College, Santa Cruz — *Computer Science*

August 2013 - May 2015, GPA: 3.9

Completed transfer work in computer science, math and physics. Built a website called cccPlan using Node.js and mongoDB to present a more informative list of transfer–level courses at Hack UCSC 2015.

SELECTED PROJECTS *(* denotes in progress)*

AI & ML
1. AI Pacman — Trained Pacman with reinforcement learning. Also designed agents that use sensors to locate/track and eat invisible ghosts
2. Image Processing — Computes depth info from stereo images. Used Intel SSE intrinsics, OpenMP API to enchance performance
3. OCR — Built a neural network that does handwritten digit recognition
4. Sentiment Analysis — Simple NLP application (demo:*sentiment.pysim.me*)
5. SIXT33N — A robot car which manuevers according to voice commands

Networking
1. PyChat* — A full–stack webapp that supports user management, instant messaging, AI chatbots and RPN spreadsheet calculator interpreter. Also provide a RESTful API. (demo:*pychat.pysim.me*)
2. WAN Optimizer — A middlebox application that optimizes the amount of transmitted data over a wide–area network

Systems
1. Bash Shell — Built a shell executes user programs in C
2. KeyValue Store — 2PC protocol for leader–follower servers coordination
3. PintOS — An x86 operating system framework that supports kernel threads, user programs execution and file systems.

SKILLS

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

Databases:
1. Familiar: MySQL, mongoDB

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

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

EXTRACURRICULARS

UC Berkeley 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

Mandarin Chinese, Cantonese, Malay