Jesse Zexi Cai

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EDUCATION

University of California Los Angeles *September 2015 - Expected June 2019*
B.S. in Computer Science and Engineering GPA: 3.77
Relevant coursework: CS35L Software Construction Laboratory, CS32 Algorithms & Data Structures, CS33 Computer Organization, EE16 Logical Design of Digital Systems, CS111 Operating Systems

Coursera (Stanford) *September 2015*
Machine Learning, Passed with a 94.1%
Linear/logistic regression, neural networks, SVM, k-means, and large scale ML in Octave.

Amador Valley High School Pleasanton, California *September 2011 - June 2015*
4.33 GPA, 35 ACT, National AP Scholar with Distinction

EXPERIENCE

NASA Jet Propulsion Laboratory Pasadena, California *June 2016 - present*
Software Engineering and Computing Systems Intern III
Created several web applications using Flask, SQLAlchemy, and PostgreSQL. Improved Elasticsearch search results by filtering by popularity. Worked on question answering system build off of YodaQA.

Association of Computing Machinery Los Angeles, California *March 2015 - present*
President - UCLA ACMA AI
In charge of creating workshops and projects about robotics, computer vision, artificial intelligence, and machine learning. Taught workshop series about machine learning with over 150 total attendees.

University of California Berkeley Berkeley, California *May 2014 - September 2014*
Summer Intern
Wrote tic-tac-toe game using the minimax algorithm. Found and fixed bugs regarding unnecessary printouts in CS61AS final project (Python interpreter in Scheme).

PROJECTS

Rover (OpenCV, Python, C++)
Project to track a ping pong ball and then bring it back. Created using a Raspberry Pi with camera module connected to a robot base. Uses OpenCV blob detection to search and find the ping pong ball.

Diag-Know-Sis (Python, Octave, Java)
Partner project webapp that uses machine learning to predict a disease given a list of symptoms. Includes Python web scraping script to grab data and an Octave parallelized training algorithm to get theta values.

TeraML (Python, CSS/HTML/JS, Django, MongoDB)
Machine Learning framework that uses Teradata's REST API to access datasets. Includes PCA, K-means, and a collaborative filtering recommender systems.

NNPlus (C++, Armadillo)
Neural Network framework with conjugate-gradient optimization function that uses cubic/quadratic approximation and Wolfe-Powell stopping conditions.

SKILLS

Very comfortable with Linux, the command line, VIM, and git • Chinese (R/S/W)