

## Jesse Zexi Cai

Apt #202 610 Levering Dr. • Los Angeles, California 90024  
jcjessecai@gmail.com • 510-298-2102 • jcaip.github.io

---

### EDUCATION

#### University of California Los Angeles

September 2015 - Expected June 2019

B.S. in Computer Science and Engineering, GPA: 3.18

Relevant coursework: CS 35L Software Construction Laboratory, CS 33 Computer Organization, CS 111 Operating Systems, CS180 Algorithms and Complexity, CS M151B Computer Architecture, ENGR 111 Finance for Engineers

#### 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.

---

### EXPERIENCE

#### NASA Jet Propulsion Laboratory Pasadena, California

June 2016 - present

Software Engineering and Computing Systems Intern IV

Created several web applications using Flask, SQLAlchemy, and PostgreSQL. Improved Elasticsearch search results by filtering by popularity. Used Stanford DeepDive and MITIE to create RDF triple stores to improve question answering system built off of YodaQA.

#### Association of Computing Machinery Los Angeles, California

March 2015 - March 2017

President - UCLA ACM 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 200 total attendees. Also worked with faculty to host a Research Fair to connect students with labs.

#### University of California Berkeley Berkeley, California

May 2014 - September 2014

Summer Intern

Wrote tic-tac-toe game using the minimax algorithm in Scheme. 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.

#### Twitter Sentiment Analysis (Tensorflow, Python, Flask)

Created an RNN model with LSTM cells to predict the sentiment of tweets. Trained on ~10000 tweets with custom word embeddings and achieved a 70% test accuracy.

#### 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.

#### Technical Blog (<https://jcaip.github.io>)

A technical blog about all my side projects. Most posts are about machine learning, artificial intelligence, and algorithms. Also contains many useful links and resources to learn more about computer science.

---

### SKILLS

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

Fluent in Python, C, C++ • Competent in Scheme, Haskell, and Java