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**Jesse Zexi Cai**

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## EXPERIENCE

**Blend** San Francisco, California  
*Machine Learning Engineer*

*September 2017 - Present*

Created log ingestion and validation pipeline via Spark with immutable S3 data store. Trained an RNN to predict whether a user would submit a loan application given user activity chains with 90% accuracy. Developed a data science toolbox with support for multiple users that allowed distributed training via Spark.

**Blend** San Francisco, California  
*Software Engineering Intern*

*June 2017 - September 2017*

Built ETL batch and real-time data pipelines based on lambda architecture. Created an extendable testing framework for data integrity of data warehouse. Deployed Airflow with automated testing and deployment to create materialized views.

**NASA Jet Propulsion Laboratory** Pasadena, California  
*Software Engineering and Computing Systems Intern IV*

*June 2016 - February 2017*

Created several web applications using Flask, SQLAlchemy, and PostgreSQL. Optimized Elasticsearch search query ranking. Used Stanford DeepDive and MITIE to create RDF triple stores to improve an in house question answering system built off of YodaQA.

**Association of Computing Machinery** Los Angeles, California  
*President - UCLA ACM AI*

*December 2015 - March 2017*

In charge of creating workshops and projects about robotics, computer vision, artificial intelligence, and machine learning that drew over 200 total attendees. Also worked with faculty to host a Research Fair to connect students with research labs. Received the ACM Student Chapter Excellence Award in 2017.

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## EDUCATION

**University of California Los Angeles**

*September 2015 - Expected June 2019*

*B.S. in Computer Science and Engineering, Upper Division Major GPA: 3.48 GPA: 3.23*

Relevant coursework: CS 111 Operating Systems, CS161 Artificial Intelligence, CS180 Algorithms and Complexity, CS M151B Computer Architecture

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## PROJECTS

**Twitter Sentiment Analysis** (Tensorflow, Python)

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 system.

**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.

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## SKILLS

7+ years experience with GNU/Linux, the command line, and vim • Chinese (R/S/W)  
Fluent in Python, C, C++ • Competent in Scheme, Java, and Javascript • Agile/SCRUM