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Jesse Zexi Cai

EXPERIENCE

Blend San Francisco, California *September 2017 - September 2018*
Machine Learning Engineer

- Implemented a LSTM-RNN model to replace a naive keyword based filter to flag complaints in user comments, improving P/R and accuracy from 70% to 90%.
- Deployed a multi-user data science toolbox with PySpark support.
- Applied deep learning NLP methods to categorize and cluster user reviews.
- Lead aforementioned technical projects and also mentored junior engineers.

Blend San Francisco, California *June 2017 - September 2017*
Software Engineering Intern

- Trained an RNN to predict whether a user would submit a loan application given user activity chains with 90% accuracy.
- Created log ingestion pipeline via PySpark with immutable S3 data store.
- Deployed Airflow with CI/CD to standardize analytics and coordinate ETL jobs.

NASA Jet Propulsion Laboratory Pasadena, California *June 2016 - January 2017*
Software Engineering and Computing Systems Intern

- Created web applications with Flask, Docker, and Elasticsearch.
- Used Stanford DeepDive and MITIE to create RDF triple stores for a question answering system built off of YodaQA.

PROJECTS

DistBelief

- Implemented DownpourSGD (asynchronous distributed training) in PyTorch.
- Wrote small message passing framework on top of PyTorch's native distributed point to point communication.

Technical Blog

- A technical blog about side projects and interesting ideas in computer science.
- Primarily focused on deep learning, distributed systems, and algorithms.

Twitter Sentiment Analysis

- Used Tensorflow to create an LSTM-RNN to predict the sentiment of tweets.
- Trained on ~10000 tweets with word embeddings and achieved a 70% test accuracy.

EDUCATION

University of California Los Angeles *September 2015 - Expected June 2020*
B.S. in Computer Science, Upper Division GPA: 3.51

- Operating Systems, Artificial Intelligence, Algorithms and Complexity, Computer Architecture, Computational Medical Imaging

Association of Computing Machinery *December 2015 - March 2017*
President - UCLA ACM AI

- Lead team of 9 officers to create a series of machine learning workshops that drew over 200 total attendees.
- Received the ACM Student Chapter Excellence Award in 2017.

SKILLS

Fluent in Python, C, C++ • Competent in Scheme, Java, and Javascript
7+ years experience with GNU/Linux, the command line, and vim • Chinese (Read/Speak)