Jack Wang

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Skills

Languages	Python, Scala, Javascript, Java, C++, SQL
Tools	React, Nodejs, D3, RabbitMQ, Heroku, Docker, Git
Data	Keras, Tensorflow, Scikit Learn, Pandas, Spark, Hadoop, Kafka, Elastic Search, AWS, GCP

Experience

Cardiogram
San Francisco, California

SOFTWARE ENGINEER INTERN
May 2017 - August 2017

- Improved the neural network infrastructure of disease detection models by automating machine allocation, neural network training and performance analysis
- Updated existing neural network architectures to be trainable on multiple GPUs
- Developed a neural network to predict sleep with a 97% area under receiver operating characteristic curve
- Designed and implemented a service to generate and serve sleep predictions to consumers using the mobile app
- Performed query and index optimizations to reduce the database load from mobile app workers
- Acted as the primary reviewer for the majority changes written in Python

Yelp
San Francisco, California

SOFTWARE ENGINEER INTERN
September 2016 - December 2016

- Improved business location quality by increasing the precision and recall of a bad location detector by 15% and 8%
- Increased machine learning model performance by adding features, tightening training data criteria and developing a gold data set for testing
- Created feedback loop using in app survey questions to validate model predictions
- Optimized survey question ask rates in order to maximize meaningful response rate and reduce question bias

Capital One Canada
Waterloo, Ontario

DATA SCIENTIST INTERN
January 2016 - April 2016

- Developed data driven web applications to help customers manage their spending using D3
- Worked with customer panels to custom design features to target common pain points
- Implement a parallelized data pipeline to ingest terabytes of credit card data using pySpark, Hive and SKlearn
- Created a risk map using D3 to graph changes in the aggregate credit scores of regions over time
- Added Docker support to web server for easy deployment and scaling on AWS

Loyalty One
Toronto, Ontario

SOFTWARE DEVELOPER
May 2015 - August 2015

- Developed a data aggregation tool using Spark to eliminate boilerplate code for feature generation and data obfuscation
- Parallelized existing data aggregation processes to reduce run times by 100x
- Executed large scale performance testing on over 80 terabytes of data to optimize resource allocation when performing data aggregation on AWS
- Prototyped an end to end data streaming pipeline using Spark, Kafka and Elastic Search to do real time analysis on adverstising campaigns
- Deployed projects to local Hadoop Clusters and AWS EC2 clusters of over 300 machines

Personal Projects

Tagger PYTHON
An automatic mp3 attribute tagger based on research done by Sony CSL

Education

University of Waterloo
Waterloo, Ontario

CANDIDATE FOR BACHELOR OF SOFTWARE ENGINEERING - 85% CUMULATIVE AVERAGE
2014 - 2019 (Expected)