Jack Wang

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Skills

Languages	Python, OCaml, C++, Scala, Javascript, SQL
Data	Keras, Tensorflow, Sklearn, GLPK, Pandas, Spark, Kafka, RabbitMq, Elastic Search, AWS, GCP

Experience

Jane Street Capital
New York, New York
SOFTWARE DEVELOPER INTERN — *September 2018 - December 2018*
- Optimized parameters for volality models used in options trading
- Improved simulation code for historical volatility models to be more composable and efficient
- Wrote a new file format to store historical exchange market data, accounting for merges, cache locality and compression

LinkedIn
Sunnyvale, California
SOFTWARE ENGINEER INTERN — *January 2018 - April 2018*
- Applied fast compression to LinkedIn's internal graph database's indexes, reducing footprint by 20%
- Aggressively optimized the critical path of index accesses, using hoisting, dead code elimination and short circuits
- Implemented a rule index, that serialized and indexed user defined functions in the graph's grammar

Cardiogram
San Francisco, California
SOFTWARE ENGINEER INTERN — *May 2017 - August 2017*
- Improved the neural network infrastructure of disease detectors by automating machine allocation, training and analysis
- Developed a neural network to predict sleep with a 97% area under receiver operating characteristic curve
- Performed query and index optimizations to reduce the database load from mobile app workers

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 regression model performance by adding features, tightening data criteria and developing a gold data set
- 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
- Implement a parallelized data pipeline to ingest terabytes of credit card data using pySpark, Hive and sklearn

Loyalty One
Toronto, Ontario
SOFTWARE DEVELOPER INTERN — *May 2015 - August 2015*
- Developed a data aggregation tool using Spark to eliminate boilerplate code for feature generation and data obfuscation
- Prototyped an end to end data streaming pipeline using Spark, Kafka and Kibana to do real time advertising analysis

Publications

DeepHeart AAAI 2018
Semi-Supervised Sequence Learning for Cardiovascular Risk Prediction
- Parameter swept top line risk predictor neural network in parallel

Education

University of Waterloo
Waterloo, Ontario
CANDIDATE FOR BACHELOR OF SOFTWARE ENGINEERING — *2014 - 2019*