

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 - Present

- Optimized parameters for volatility 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 (Expected)