David Luo

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SKILLS

Languages: Python, C/C++, JavaScript, PHP, Swift, Java, Go
Technologies: Git, SQL, pandas, scikit-learn, Spark, ElasticSearch, jQuery

EXPERIENCE

A9.com, Amazon Subsidiary (Advertising Technology)   Jan. – Apr. 2018
Software Engineer   *Palo Alto, CA*
- Implemented collection of advertisement data, transformed terabytes of raw logs and analyzed them to discovered opportunity to **increase publisher revenue**
- Designed and implemented error reporting tool for JavaScript SDK used in thousands of publisher websites, **improving SDK reliability** to 99%
- Developed data pipeline from AWS S3 to AWS ElasticSearch, increasing data readability

Microsoft (Input Method Editor)   May – Aug. 2017
Software Engineer   *Tokyo, Japan*
- Developed workflow to analyze **over 30 million rows** of word conversions from Japanese input method, found and ranked top 20 factors of incorrect conversion
- Refactored data collection workflow to **increase data overlap** by 20x, improved data analysis of patterns between user feedback and tracked data
- Implemented bag of words model to find context words, **decreased prediction error** by 5%
- Prototyped news article recommendation system based on users' typing history

Ritual   Sept. – Dec. 2016
Data Scientist   *Toronto, ON*
- Designed and built machine learning pipeline to predict likelihood of referral success, **improved success of referral suggestions** from 60% to 70%
- **Optimized run time** of BigQuery database sync script by 50% using parallel computing
- Maintained and added new tools to internal reporting web application, used by general managers and CEOs to easily monitor the status of users, merchants, and revenue

Osellus Mobile   Jan. – Apr. 2016
Mobile Developer   *Toronto, ON*
- Implemented data visualization application using Swift, used by 10+ companies
- Optimized built-in cache for data visualization by **reducing fetch time** by 80%
- Migrated and refactored Objective-C codebase to Swift, **reduced codebase size** by 30%

PROJECTS

Yelp Rating Predictor (Python)
- Predicts review star rating using a random forest classifier trained with NLP techniques

CoffeeTime (Android, Java, Firebase, Coinbase)
- Allows friends to pick up coffee for each other, uses bitcoin as transaction currency

EDUCATION

University of Waterloo, Bachelor's in Software Engineering   2014 – 2019 (expected)