

Raymond Deng

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EDUCATION

University of Waterloo

Bachelor's of Mathematics Honors Statistics (Co-op) 2020

Relevant Courses: Data Structures and Algorithms, Generalized Linear Models, Databases, Markov Chains, Statistical Forecasting

EXPERIENCE

Software Developer

Lightspeed

Toronto, Ontario

Aug. 2020 - Current

- Core developer on the team that built a microservice integrating Google's advertising tools directly into user accounts as part of a global partnership with Google, as seen on [Yahoo finance](#) and [Financial Post](#).
- Onboarded tens of thousands of users for Google Ads and was a key part of Lightspeed's quarterly shareholder report.
- Owned core functionalities such as fetching ads metrics data, CRUD operations on Google Ads Campaigns using Go and Google Ads API.
- Built interactive graphs using NextJS to display campaign metrics, also contributed towards an authentication system for requesting scopes from users using OAuth 2.0.

Data Scientist (Co-op)

Athos

Redwood City, California

Jan. 2020 - Apr. 2020

- Built end to end activity classification model, applying Daubechies wavelet transformation for noise removal and PCA for dimension reduction.
- Implemented an automatic rep-detection model for EMG signals using LOESS smoothing, low pass Butterworth filter and continuous wavelet transform.
- Design and built backend near-real-time data streaming and processing architecture with InfluxDB, PySpark and AWS Kinesis.

Machine Learning Engineer (Co-op)

ShopBonsai

Toronto, Ontario

Jan. 2019 - Apr. 2019

- Developed recommendation engine using collaborative filtering that utilizes high dimension user data.
- Trained custom Word2Vec, Doc2Vec models on in-app articles and applied cosine similarity between word embeddings to improve article recommendation system.
- Created a shared nearest neighbours classification model from scratch based on a research paper for clustering high dimensional noisy data.
- Built various ETL pipelines using GCP and Kubernetes to continuously pull data from third-party merchants.

Full Stack Developer (Co-op)

WalterFedy

Waterloo, Ontario

May 2018 - Sept. 2018

- Developed the entire company's service portal from scratch using Django. The site is live on AWS Elastic Beanstalk and is used by 400+ employees.
- Setup an automatic deployment system using Jenkins and Docker.
- Implemented multiple checkout systems, email notification servers as well as permission groups within the site.

Software Engineer (Co-op)

TradeRev

Toronto, Ontario

Sept. 2017 - Dec. 2017

- Developed live feature of email notification using AWS SQS service.
- Created mock API using AWS Lambda functions to test developing features.
- Integrated support tool to attach PDF forms to trade using Grails and Angular.

PROJECTS

Thoughts By Ray

- Personal Blog designed and built from scratch using Gatsby, Material UI, GraphQL, and React Helmet for SEO.
- Supports multiple features such as code blocks, dark mode toggle, read time estimation as well as filter by tags.
- A place where I share coding experiments along with my personal journey, thoughts, and experiences.

SKILLS

LANGUAGES & LIBRARIES: Python, Go, Javascript, Next.js, React, R, GraphQL, SQL, Java, Pandas, Numpy, Scikit-learn, Keras, TensorFlow, PyTorch, PySpark

ML MODELS & OTHER TOOLS: Matrix Factorization, KNN, SNN, LSTM, K Means, Tf-IDF, Word2Vec, Web Sockets, Django, Flask, Various AWS tools, Docker, GCP, Kubernetes, Git, Linux, InfluxDB