

Raymond Zheng

Data scientist, Software Engineer

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EDUCATION

UNIVERSITY OF WATERLOO

BS IN COMPUTER SCIENCE

BS IN STATISTICS

3rd Year, Expected April 2020

Major GPA: 3.4 / 4.0

LINKS

Github.com/[ZhengRaymond](#)

Kaggle.com/[ZhengRaymond](#)

LinkedIn.com/in/[ZhengRaymond](#)

<http://CodeToJoy.me>

COURSEWORK

(☒ = Completed)

UNDERGRADUATE

☐ Database Management

☒ Algorithms/Data Structures

☒ Operating Systems

☒ Numerical Computation

☒ Assemblers

☒ Object Oriented Software

☒ Logic and Computation

☒ Applied Probability

ONLINE (MOOC)

☐ Sequence Models

☐ DeepLearning: RNN/CNN (Udemy)

☒ Neural Networks and Deep Learning

☒ Improving Deep Neural Nets

☒ Structuring Machine Learning Projects

☒ Convolutional Neural Networks

☒ A-Z Machine Learning (Udemy)

☒ React, Redux, GraphQL (Udemy)

☒ Intro to Machine Learning (Coursera)

SKILLS

LANGUAGES

Python2/3 • Java • JavaScript • Node.js •

React-Redux-Relay-Apollo-GraphQL-

SQL/Mongo • React Native • C • C++ •

Go • Julia

PREFERRED TOOLS

Data Science: Keras • Tensorflow •

Numpy • Pandas • Scikit

Other: • Google OR • MySQL •

MongoDB • Docker/Kubernetes •

AWS/GCP • Git • Jenkins •

Maven/Gradle • Vault

EXPERIENCE

ETSY | MARKETING SERVICES FULLSTACK

May 2018 to August 2018 (Present) | New York City

HOMER LOGISTICS | OPERATIONS RESEARCH ANALYST

January 2018 to April 2018 | New York City

- Built a entire NP-hard constraint solver from scratch (combination of TSP and binpacking and scheduling problem), can solve < 1% of best known solution.
- Interface to connect with software team's API and allow real time solving.
- Research: implemented 7 algorithms from papers, and developed 1 variation of tabu search.
- Most effective metaheuristics: Simulated Annealing, Genetic Algorithm, Ruin&Recreate, Tabu Search.
- Problem detail: CPDPTW - Capacitated Pickup and Delivery Problem with Time Windows.
- Created a development framework to quickly prototyping new heuristics.
- JUnit testing and performance testing.

APPDIRECT | BACKEND DEVELOPER

May 2017 to Aug 2017 | Montreal, QC

- Created user facing dashboard and CLI to access Kubernetes. Integrated with in-house environment provisioning tool.
- Used Segment.io analytics to identify and implement features to reduce load time and user clicks by 90%.
- Created search/indexing, and user caching feature for environment logs.
- Created web app to configure environments from blueprints. Uses dynamic forms and extensive validation to guide users.
- Replaced various dashboard with chatbots accessible via Slack.

GENESYS | SOFTWARE ANALYST

Sept 2016 – Dec 2016 | Toronto, ON

- Automated server monitoring across 100+ machines, fixed and maintained Linux systems (Python, Linux, Zabbix)
- Dockerized scripts to reduce compatibility issues and improve maintainability.
- Used Selenium to automate tasks, data collection, and testing.

PROJECTS

CHUBER | FEB 2018 - PRESENT

- Routes vehicles among a user's social network to efficiently rideshare.
- Solves a scheduling and preference constraint integer program.

TOTAL CONTROL RENT | DEC 2017 - PRESENT

- Scrapes Airbnb (AirAPI) and Craigslist using Cheerio
- Leaflet to visualize map data.
- Uses VP-trees to store various geospatial data.

STYLEZURE | HACK THE NORTH - SEPT 2017

- Azure Chatbot experimenting with many vision and NLP APIs.

TETRIS BOT | WATERLOO ENGHACK - JAN 2016

- Deep neural network learns the game of Tetris. (C++)