Kinnan Kwok

Software Developer | Machine Learning

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Software Developer with demonstrated history of work in production systems, continuous integration, cloud infrastructure, web dev and machine learning.

SKILLSET

Data Science: python, nltk, numpy, pandas, spark, big data

Machine Learning: TensorFlow, Keras, Neural Nets, classification, regressions, Bayes Inference

Web Development: JavaScript, CSS, HTML, React, Redux, Node.js

DevOps: AWS, GCP, Ansible, Terraform, Docker, Continuous Integration

Work process: agile, kanban, story writing, technical writing, documentation

WORK HISTORY

Senior Software Developer - *TELUS Digital, Vancouver*

2016 - PRESENT

- Led development of a large scale checkout application, unifying TELUS products and services into a single funnel, and serving roughly 100,000 requests per day.
- Iteratively built and shipped UI features in React.js and Node.js that increased conversion rates by over 500%.
- Proposed accepted architecture solutions that lead to proper minimalist software designs.

DevOps - *TELUS Digital, Vancouver*

NOV 2014

- Integrated TELUS's first continuous integration pipeline by advocating for Continuous Delivery practices which increased the rate of safe code deployments per week.
- Built AWS infrastructure using Ansible, Terraform, Docker to standardize configuration and automated deployments for hundreds of TELUS micro-sites.
- Built monitoring tools to track uptime, alert on issues so that developers can respond to failures in time.

PROJECTS

Neural Network Music Synthesizer - *Machine Learning class project*

DEC 2018

Trained a recurrent neural network on MIDI files to synthesize musical sequences and presented in a showcase.

Pun Classification- *Natural Language Processing class project*

DEC 2018

Trained a model to locate and classify puns in English sentences and presented in a showcase.

MovieLens Ratings - *Data Science class project*

JULY 2018

Gathered, cleaned and analyzed data to find correlating features in movie ratings that possibly led to the movie's success and predicted profitability from plot summaries using classification techniques.

EDUCATION

Simon Fraser University, BC - *Bachelors of Computer Science*

SEPT 2011 - 2014, 2018 | GPA: 3.4

Concentration in Artificial Intelligence and Machine Learning.

Software Development

- Software Engineering - Java, OOP, requirements gathering
- Programming Languages - Functional and concurrent programming in Haskell and GoLang
- Database Systems - SQL, NoSQL, clustering, database management
- Operating Systems - UNIX, Kernels, processes, threads, CPU scheduling, parallel computing
- Data Structures and Algorithms - Greedy algorithms, dynamic programming, graph algorithms, network flows, NP hard problems

Artificial Intelligence

- Data Science - Python, numpy, pandas, matplotlib, spark
- Computer Vision - Convolutional nets, facial detection, photometric stereo, object tracking, SIFT
- Machine Learning - Bayesian Inference, neural networks, PyTorch, logistic regressions, perceptrons, classification
- Natural Language Processing - Language models, translation, grammars, topic modelling
- Deep Learning - Neural networks, GANs, VAEs