Kinnan Kwok

Software Engineer | Machine Learning

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Software Engineer 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

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 large scale checkout application serving roughly 100,000 requests per day.
- Increased conversion rates by 500% by iteratively improving UI features based off of data.
- Gradually removed technical debt along with building features and mentoring other developers on best software practices.

DevOps - *TELUS Digital, Vancouver*

NOV 2014

- Built AWS infrastructure automation using Ansible, Terraform, Docker, and standardized configuration as code for hundreds of TELUS micro-sites.
- Improved the rate of safe code deployment by integrating TELUS's first continuous integration pipeline and advocated for Test Driven Development.
- Built monitoring tools to maintain uptime and debugged production failures while on call.

PROJECTS

Neural Network Music Synthesizer - *Machine Learning class project*

DEC 2018

Trained music MIDI files on a recurrent neural network to generate new synthetic music 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.

Simple Blockchain - *Programming Languages class project*

JULY 2018

Built a simplified GoLang version hashing algorithms and proof of work used in blockchains.

EDUCATION

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

SEPT 2011 - 2018 | GPA: 3.3

Concentration in Artificial Intelligence and Machine Learning.

Software Development

- Software Engineering - Java, team dynamics, OOP
- Programming Languages - Functional and concurrent programming in Haskell and GoLang
- Database Systems - SQL, NoSQL, clustering, database management
- Operating Systems - Kernels, processes, unix, threads, 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, inference, big data
- Computer Vision - Convolutional nets, facial detection, photometric stereo, object tracking, SIFT
- Machine Learning - Bayesian Inference, neural networks, PyTorch, logistic regressions, classification
- Natural Language Processing - Language models, translation, grammars, topic modelling
- Deep Learning - Neural networks