

ELAINE YE

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EDUCATION

University of Waterloo

2014 - 2019

Computational Mathematics (BMath)

TECHNICAL STRENGTHS

Languages	• Python • R • JavaScript
Libraries & Framework	• NumPy • Keras • PyTorch • Serverless Framework • Terraform
Software	• Bash • Git • PostgreSQL • Docker • AWS • Databricks

WORK EXPERIENCE

SkyWatch

Apr 2020 - May 2021

Platform Engineer

- Modified model in AWS SageMaker to detect clouds in RGB satellite imagery.
- Built infrastructures to perform model serving using Lambda, SNS, SQS, Step Functions, and Batch Transform.
- Designed and develop event-driven microservices that power the application backend and REST API.

Luci.AI

Aug 2019 - Dec 2019

Software Developer

- Built platform for route optimization in Multi-Vehicle Routing, combining OSRM mapping data with CPLEX optimization engine.
- Achieved 80% accuracy for model to recognize more than 200 varieties of fruits and vegetables by fine-tuning a pretrained ResNet model.

IBM

Sept 2018 - Dec 2018

IoT & AI Developer Intern

Evaluation: Outstanding

- Investigated and implemented closed-set and open-set face recognition algorithms with facenet and SVM using Python and TensorFlow
- Built a PoC control access system to detect and recognize faces using Raspberry Pi with 99% accuracy
- Deployed interactive blockchain web app using React and Hyperledger Composer to track status information of IoT-enabled packages that pass through multiple carriers in the supply chain

Cognitive Systems Corp.

May 2018 - August 2018

Machine Learning Data Analyst Intern

Evaluation: Outstanding

- Detected human and mechanical motion signatures and reduced false alarm rate by 50% by extracting structured patterns from radio frequency signals
- Designed a robust noise estimator for embedded devices to distinguish noise from real motion using statistical hypothesis tests

PROJECTS

NLP Emotion Detector

Developed a sentiment classifier for Chinese conversational text using TF-IDF (term frequency - inverse document frequency) and logistic regression in Python

Teochew NLP Project

Explored the sound correspondences between the Teochew dialect and Mandarin using data

My blog: <https://sugarc0de.github.io>

Vocabassist

Designed and built a website in Vue.js and Flask to auto highlight difficult words in any given English text

My website: <http://vocabassist.com/>