Tate Cheng

Software Developer

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skills

PROGRAMMING	Git, Python, C++, Java, Bash, SQL
TOOLS	Pandas, Numpy, XGBoost, Keras, TensorFlow, PyTorch, SK-Learn
SPOKEN LANGUAGES	English, Cantonese, Mandarin
OTHERS	Agile, OOP, DevOps

employment

Data Analyst Student Intern — 88 Queen Quay West, Toronto
Royal Bank of Canada
May 2018 to Current

- Developed a analytic test automation suite for the Royal Bank of Canada Mobile App. Which find and check if event and their's tag are being fired correctly onto the data base.
  And utilized it to find analytical error for the upcoming 2.0 release. Built using **Python**, **Android Studio** as well as **Google Analytic** and **Big Query.**
- Assisted on repairing the mobile app fingerprint authentication issue currently on the production line. By pulling specific user's data who match certain criteria using **Google's Big Query** and **Python**. And performing case analysis on these user's cases to determine the cause of the issue.

Machine Learning Research Assistant — Central, HongKong
Epiphany Asset Management (HK) Limited
May 2017 to July 2017

- Compared different machine learning algorithm model's performances and determined which model is more suite-able for usage by building and developing deep-learning neural-network such as **LSTM**, **Gradient boosting regression** or **hybrid ARIMA** using HSI's data
- reconstruct daily returns of HSI from monthly data, and studied the properties of the reconstructed time series with the original one by utilizing compressed sensing and machine learning algorithm.
- Compared the correlation between different hyper-parameter on a model by perform hyper-parameter optimization using grid search on different neural network model

Computer Science Tutor — Waterloo, ON
Sept. 2015 to Sept. 2017

- Worked with first year students University at the University of Waterloo who were enrolled in CS135, CS136, CS115 and CS 116
- Assist students preparing for mid-term exam by create sample question and demonstrated step by step thought process for solution. As well as reviewing pass solution from assignment.

Computer Technician — Markham ON
Mac&PC Repair Depot
Sept. 2015 to Jan. 2016

- Used analytical skills and knowledge of computers to determine issues and find appropriate, technical solutions
- Installed, upgrade and troubleshoot issues for software and hardware at user request
- Repaired liquid-damaged, broken screen, and bricked Macbook.

awards

University of Waterloo President's Scholarship — June 2016
University of Waterloo Faculty of Math Euclid Contest Scholarship — June 2016
Canadian Senior Mathematics Contest Distinction (top 25%) — Jan. 2016

education

3A - University of Waterloo
Candidate For Bachelor of Computer Science 2020

hackathons

RUHacks2018
- **Best Green(Money) Hack**
- Built Cocoa, a proactive budget financial app that notified you prior to making purchases at checkout
- Worked on backend server with python and **Flask,** as well as **Google's Place API**

ConuHack 2018
- **First Place API Challenger Winner and Hackathon Overall Third Place Winner**
- Built awesome sport. An automatically soccer game highlighter using **Data Analytic** and **Machine Learning.**
- Worked on extracting data using the **Astucemedia API** in the backend server

YHack 2017
- Built Emotionji, a conversation analysis that is able to show the emotion between the two people at the time of speech.
- Worked on the backend server with **Python** and **Google cloud speech**, **IBM Watson**, and **Iconic Machine Learning API**.

MSFTHack 2017
- Built FoodMe that Calculate food nutritional value by taking a picture of food utilizing **Microsoft Azure Machine Learning**

projects

Curtain Automation
- Attempt to build a automatic curtain open-er that operate based on command or time
- Build with **Arduino uno Micro Controller**, **A3967 microstepping driver** and **3D printed** Part

QuadRis
- Using **C++** and **OOP**. Built the retro game Tetris, featuring custom-made rules and level.
- Implemented a prefix trie and completed an interpreter that allows the user to shorten or repeat sequence of command in ease.

Party Web Service
- Used **React**, **Material UI**, **Redux**, and **Node.Js** and built a web-based party game engine
- Focused on developing user experience
- Unique feature designed to promote physical interaction between players