

Tony Tian

3rd year Computer Engineering

Contact

✉ yuda.tian@uwaterloo.ca
☎ 647-818-7851
🌐 y-tian
in tony-yt
🌐 <https://tonytian.dev>

Skills

Development

Python
Go
C/C++
SQL
Java
Bash
Linux
JavaScript
HTML/CSS

Technologies

Apache Kafka
Protocol Buffers
Kubernetes
Docker
Helm
AWS
Datadog
Jenkins

Tools & Database

Git
InfluxDB
MongoDB
PostgreSQL
GCP BigQuery

Education

University of Waterloo
BAsC Computer Engineering

Interests

Watonomous
Competitive Badminton
Sci-fi Books
Guitar
Hackathons

Work Experience

Auvik Networks Backend Software Developer Intern May 2019 - Aug 2019

Go, C++, Datadog, Protocol Buffers, Apache Kafka, InfluxDB

- Built a core health check service to terminate inactive hanging websockets to improve product stability and **reduce product failures by 20%**
- Engineered Go micro-service to aggregate metrics for Datadog; increased visibility into product performance and enabled automated alarming resulting in **15% less downtime**
- Developed infrastructure for micro-service data pipeline with Apache Kafka and influxDB
- Implemented a multi-threaded scheduler for sockets using Protocol Buffers to relay messages across thread managers

IBM Cloud Production Software Developer Intern Sept 2018 - Dec 2018

Python, Go, Kubernetes, PostgreSQL, Helm, Jenkins

- Built a Go concurrency-safe micro-service to manage the injection of keys & secrets to Kubernetes; resolved major security encryption flaws and migrated user data
- Used Python to create a Kubernetes resource management micro-service that automates cluster-wide resource syncs and the creation of new customer deployments
- Composed API mocking tools for test suites using Python's Unittest framework to **reach over 95% code coverage**

IBM Cloud Infrastructure Software Developer Intern Jan 2018 - Apr 2018

Python, Java, Docker, Kubernetes, Bash Scripting, Linux

- Developed micro-services to pipeline custom user resource packages to configure the product and resolved the last major production milestone
- Improved a Python deployment tool to **increase the speed of continuous delivery by 30%**
- Containerized micro-services and web applications with Docker to deploy on Kubernetes

Projects

Coinsys Assistant Stock Market Analysis Github.com/coinsys

- Built a Go tool to run a technical analysis of popular cryptocurrencies with the MACD indicator & histogram and displayed the metrics with charts
- Utilized Go Cobra for a CLI interface and created a MongoDB driver interface to fetch and store historic cryptocurrency stocks

SlapsRoofOfCar.bot Machine Learning Github.com/slapsroofofcar

- Built a Keras deep learning application in Python to analyze used car market trends and predict prices in your local area using the regularization model to eliminate overfitting
- Processed and scaled datasets to create a neural network with **98% accuracy and low loss**, resulting in accurate predictions

TrashTag It - UW Energy Hacks Sustainable Software

- **First place for MLH's** Best use of Snapkit SDK and Transposit's framework categories
- Built an Android app that allows users to log outdoor littering locations with pictures
- Developed JavaScript API endpoints to serve location data and a Python Flask web server

STALKme - Hack the North Computer Vision

- Created an automated rotating assembly with a face tracking webcam using an Arduino
- Implemented live facial predictive tracking with OpenCV in Python with cascade classifiers