Tony Tian

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TonyTian.dev
Y-Tian
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Education

University of Waterloo
BASc Computer Engineering
2017 - 2022

Skills

Development

Python
Go
C++
Java
Bash scripting
Linux & Unix systems
Windows

Infrastructure

Docker
Kubernetes
Helm
AWS
Jenkins
Travis
Nginx

Tools & Database

Git
SVN
Visual Studio
Makefile
MongoDB
SQL
PostgreSQL
GCP BigQuery

Activities

IBM Future Blue
UWaterloo Badminton Club
UW EnergyHacks | 2019
TerribleHacks | 2018
Hack the North | 2017
Vex Robotics | 2017

Interests

Badminton
Guitar
Sci-fi and Fantasy Books

Experience

Auvik Networks | Software Developer - R&D Data Acquisition

May 2019 - Aug 2019

- Built a core TCP websocket liveness check monitor using C++ and the Actor Framework
- Implemented a robust multi-threaded scheduler for sockets using Protocol Buffers to relay messages across thread managers
- Created a Go micro-service to capture HTTP tracing & custom metrics and send it to Apache Kafka & influxDB for processing
- Developed the infrastructure to pipeline micro-service metrics data to Datadog

IBM Cloud | Software Developer - Cognos Analytics

Sept 2018 - Dec 2018

- Built a Go Vault micro-service with a CLI and event handlers to manage the injection of keys & secrets; resolved major security encryption flaws and migrated user data
- Developed a Python resource manager for Kubernetes that automates cluster-wide data syncs to handle creating & updating Secrets, Service Accounts, and Namespaces
- Composed API mocking tools for test suites using Python's Unittest framework to reach over 95% code coverage

IBM Cloud | Software Developer - Cognos Analytics

Jan 2018 - Apr 2018

- Developed a SFTP file upload micro-service on Linux using Bash scripting, Kubernetes, and Helm for users to deploy custom resource packages and resolve a production roadblock
- Improved a Python deployment tool to increase the speed of continuous delivery by 30%
- Containerized legacy web applications with Docker to deploy on Kubernetes

Projects

SlapsRoofOfCar.bot Machine Learning

- 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

Coinsys Assistant Stock Market Analysis

- Built a Go tool to run a technical analysis of popular cryptocurrencies with the MACD indicator & histogram
- Utilized Go Cobra for a CLI interface and created a MongoDB driver interface to fetch and store historic cryptocurrency stocks
- Integrated visuals and graphing of the analysis using a Go Chart handler

TrashTag It - UW Energy Hacks Sustainable Software Engineering

- Winner of 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 JS API endpoints to serve location data on 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