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Randy Duong

Software Developer

github.com/randyduong08
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Skills

Languages	C++, Python, Java, C, C# (Unity), JavaScript, HTML5
Tools	MySQL, Microsoft Azure, Linux, Windows, Git, GitHub, Unity
Packages	Tensorflow, Pytorch, OpenCV, IoT Hub, Numpy, Pandas, Azure Stream Analytics, pytesseract

Education

Bachelor of Science Honours Computer Science with Software Engineering, ***University of Windsor*** **2020 — Present**
President's Level Renewable Entrance Scholarship 2020 — Present

- Cumulative Average: 92.80
- Major Average: 93.00
- Dean's Honour roll
- Currently enrolled in major courses: Intro to Software Engineering, Database Management Systems, Object-Oriented Software Analysis/Design, Computer Networks, Theory of Computation

Work Experience

Commercial / Data Analytics **May 2022 — Aug 2022**
FGF Brands *Toronto, Ontario*

- Coded a Python program that uses OpenCV and Multiprocessing to perform object detection on multiple industrial lines to monitor and notify when a line is not moving, or if a line is empty, and to use the statuses of multiple lines to perform root cause analysis
- Implemented an automated data acquisition system that uses KepServerEX to normalize raw industrial data acquired from various physical sensors through Ethernet, WIFI, and LPWAN
- Designed a concept to stream data from KepServerEX into Microsoft Azure IoT Hub through MQTT and REST protocols, and to use Azure Stream Analytics to perform various tasks with data pulled, such as storing data into Azure SQL Database, or to visualize data on PowerBI to monitor Opportunity Loss
- Annotated Datasets of SKU images to use in Azure Custom Vision

Computer Science Teaching Assistant **Feb 2022 — Apr 2022**
University of Windsor *Windsor, Ontario*

- Served as Teaching Assistant for University of Windsor's Python Programming Course
- Marked students' assignment and lab submissions involving the use of Python to solve given problems
- Hosted weekly Office Hours with the purpose of assisting students with questions regarding general Python programming

Projects

Twitch AI Outcome Predictor **Aug 2022 — Sep 2022**

- Developed a program in Python that uses a regression model to predict the outcome of Mario Kart games on Twitch streams
- Uses OpenCV Computer Vision and pytesseract optical character recognition to grab historical data of Mario Kart games
- Utilised scikit-learn to train a high accuracy Linear Regression model using data read from a CSV with Pandas
- Continuously updates the data CSV as more data is obtained from games completed on Twitch streams using Pandas

House Occupancy Monitor **Sep 2022 — Present**

- Developing a program in Python that monitors the number of people currently in the household in real-time
- Uses RTSP protocol to connect to Lorex cameras via IP Address
- Uses OpenCV and YOLO algorithm to detect people walking in and out of the house
- Currently storing snapshots of human detection with the purpose of future use in training a network to correctly identify unique people

Unity Game Project **Dec 2021 — May 2022**

- Developed a multiplayer game in Unity with 1 other person during spare time
- Implemented 3D player movement using Unity packages within C# scripts
- Completed networking capabilities which includes server-client based connection and peer-to-peer connection