


Meixin (Maxine) Zhang

Computer Science/Business Option at UWaterloo

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Programming Languages

C / C++ • Python • C# • SQL
HTML • CSS • JavaScript
TypeScript • R • Scheme • Bash

Technologies

Node.js • jQuery • Angular
Git • \LaTeX • Vim • MatLab
Robot Operation System (ROS)

Accomplishments

Elle Hacks 2019, 1st Place
Hubdoc Hack 2019, 1st Place
2018 Dean's Honours List

Activities

Member of Waterloo Aquadrone
Machine Vision Team
Technology Executive at UW
Finance Association
Math Ambassador at UWaterloo
Latin Dance Club Representative

Interests

Orchestral Violin Player
Latin Dance Performer
Drawing and Painting

Education

University of Waterloo

Bachelor of Computer Science
Co-operative Program
Business Specialization
Global Experience Certificate
April 2022 | Waterloo, ON

Relevant Experiences

Google | Software Engineering Intern
Waterloo, ON | May – August 2020

C++

- Contributing to the open-source tensor-flow extension repository

Deloitte | Data Science Intern
Toronto, ON | January – April 2020

Python, SQL

- Supported time sensitive client projects
- Developed generalized exploratory data analysis (EDA) script and cross-validation module for internal cross-client codebase, reducing time spent on these tasks by 50%
- Built a text based search and question answering engine on research papers with DistilBert and BM25+, achieving 95% confidence with top 10 answers

Selected Projects:

Physician Prescription Behavior | 8 weeks

- Proposed and built significant features in an interpretable linear model for identifying driving factors of new prescriptions, increasing the precision of the model by 8%
- Ensured minimal bias and noise with residual analysis and visualization

COVID-19 Occupancy Forecast | 3 weeks

- Developed the full data science pipeline for forecasting COVID-19 requirements of hospitals using regression with interaction statistic model with an accuracy of 90%

Hubdoc | Robot Platform Software Developer
Toronto, ON | January – April 2019

JavaScript, Node.js

- Redesigned and refactored asynchronous scraping scripts and processing algorithms, led to improvement of robot efficiency and success rates by as much as 80%
- Trained neural networks to localize login fields and developed a machine learning model to classify login states, which further automates document fetching process

Projects

IPlanner | Interactive Agile Planner

C#

- Researched and implemented Principal Component Analysis (PCA) algorithm using C# to narrow down the most influential factors for the success/failure of a sprint
- Analyzed program outputs and presented new evaluation methods and critical success factors for Agile practices in 20+ teams

ParkIt | Automated Parking System

JavaScript, Node.js

- Designed and built a web app that integrates machine vision and cloud platform for licence plate recognition, automating payments, and storing parking history
- Implemented RESTful API endpoints with Node.js that to facilitate real-time communication between hardware, the user portal, and the database

WATonomous | Autonomous Vehicle Path-Planning

C++, ROS

- Developed software for an SAE Chevrolet Bolt competing in the GM/SAE Autodrive Challenge using weight-based cost map evaluation and D* route planning algorithms
- Implemented a parameter server compatible with ROS to update program constants at runtime, reducing 20+ hours of recompiling time at testing during release cycles