

Tyler Chen

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Skills

- **Full Stack:** React, Angular, Flask, Node, MongoDB, SQL
- **Languages:** Java, Python, JavaScript, HTML, CSS
- **Technologies:** AWS, Azure, Docker, Scikit-learn, TensorFlow, Pandas, Matplotlib, Git, Bash

Employment

Software Developer

Waterloo, ON

DELOITTE

Jan. 2020 - Apr. 2020

- Architected and developed a full-stack platform with **React, Flask, and MongoDB** that gathers, manages, and automatically updates data on business incentives throughout Canada, **saving each user 3 hours/week** and reducing reliance on external services
- Built a **custom entity extractor** using **spaCy** that identifies and processes distinguishing information on business incentives from news articles with **over 20% more accuracy** than the previous solution
- Deployed application leveraging **AWS** services (**EC2** and **DocumentDB**) and **Azure** services (**Virtual Machines, Blob Storage, Logic Apps, and CosmosDB**) using **Docker**
- Developed multi-threaded web crawlers and scrapers with **Scrapy** and **Selenium** to gather details on business incentives, expanding the knowledge base **over 2000%**

Full Stack Developer

Toronto, ON

ONTARIO MINISTRY OF GOVERNMENT AND CONSUMER SERVICES

May 2019 - Aug. 2019

- Developed full-stack components with **Angular, Java, and SQL** for the Ministry's platform used to manage the transfer payments of the province
- Single-handedly built and integrated a new framework to actively **manage and automate asynchronous processes** using **Java** and **SQL**
- Developed **data models** and expanded a Java REST API to support the generation and download of audit reports

Projects

Dog Breed Identifier

TENSORFLOW, PANDAS, MATPLOTLIB

- Used **TensorFlow** and **Keras** to apply transfer learning and build a model that identifies dog breeds from images with a **multi class log score of 1.35**

Heart Disease Predictor

SCIKIT-LEARN, PANDAS, MATPLOTLIB

- Trained and tuned a supervised **logistic regression** model that correctly predicts whether or not an individual has heart disease with **over 88% accuracy** with an **AUC of 0.92** using **Scikit-Learn**
- Used **Pandas, NumPy, and Matplotlib** to perform **data analysis, visualization, and the determination of feature importance**

Storefront

NODE, EXPRESS, MONGODB, EJS

- Developed a mock e-commerce web application following **MVC architecture**
- Used **Node, Express, and MongoDB** to support user authentication and product management
- Used **EJS** to design and structure front-end pages

Peekaboo

REACT, NODE, EXPRESS, POSTGRESQL

- Built a responsive, single page web application using **React** and **Node**, and **Express** that recognizes and identifies faces in uploaded images
- Developed a **RESTful API** to drive user registration and authentication with a **PostgreSQL** database

Education

University of Waterloo | Honours Management Engineering

B.ASC CANDIDATE, 2018 - 2023