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# Skills

Languages: Python, Javascript, Typescript, C#, C++, C, SQL, Bash, HTML, CSS Database & Tools: AWS, MS Azure, MS SQL, MongoDB, Docker, Git, Postman, Figma Libraries: OpenCV, Tensorflow, PyTorch, NumPy, Matplotlib, Pandas, Scikit, Tailwind

Frameworks: ReactJS, NextJS, ExpressJS, NodeJS, ASP.NET Core, Flask

## **Experience**

## Software Engineer Intern

Waterloo, ON

Descartes Systems Group

May 2024 - Aug. 2024

- Developed backend geocoding services for clients to validate and search for addresses using MS SQL Server and several third party data providers including OpenStreetMaps, Here and Melissa
- Supported the migration of company applications onto the .NET Core framework by refactoring existing codebases, implementing MVC architecture, and resolving 50+ bugs in C#
- Reduced application response times by ~700ms through the integration of in-memory caching mechanisms

## Software Engineer Intern

Toronto, ON

Eon Media

Sep. 2023 - Dec. 2023

- Continued development work on an Al pipeline, collaborating with a team of three engineers to implement brand recognition features for a large repository of archival videos and sports broadcasts
- Created API endpoints using Nginx and Flask allowing the frontend to retrieve and modify video metadata
- Led the encoding process of 7,500+ MP4 files into watermarked HLS playlists with Python and AWS Lambda
- Designed an autocompletion system out of an Elasticsearch database to optimize search features for brands
- Worked closely with various AWS services, especially EC2, S3, Lambda, IAM, and VPC, identified areas of high expense and implemented strategies to mitigate costs resulting in over \$2000 of monthly savings
- Built an automated chatbot application to deliver hourly updates on active pipelines to the AI team over Slack

### **Projects**

## iSpy Facial Recognition System 🔀

Python, OpenCV, Numpy, Tensorflow, Google Cloud, Flask, React, Javascript, Tailwind, HTML

- Developed a full-stack face recognition app using Tensorflow and OpenCV, achieving accuracies over 90%
- Built a **React** user interface to view and edit training data stored in **GCS** and automatically update the model
- Integrated a Flask server hosted on VPC to handle requests for database interactions

#### Personal Portfolio 🗹

React, HTML, Javascript, CSS, Notion API, Spotify API, Figma

- Designed an interactive personal portfolio with React, Javascript and CSS that includes stylish JSX components, animations, light and dark themes as well as an email webform
- Leveraged Notion API to transfer content within Notion pages onto the website for increased scalability
- Integrated Spotify API with OAuth 2.0 protocol, to retrieve and showcase real-time Spotify data

#### 2048 Interactive Webgame 🗹

Unity, C#, Javascript, HTML, CSS

- Programmed an object oriented implementation of the popular game 2048 using C# and Unity
- Displayed the game as a static website created with a combination of HTML, CSS and Javascript

## **Education**

## University of Waterloo

Waterloo, ON

Bachelor of Computer Science

Sep. 2022 - May 2027

- Extracurriculars: UW Data Science Club Development Team, Varsity Figure Skating
- Coursework: Object-Oriented Programming (C++), Data Abstraction (C), Tools and Techniques for Software Development (Bash), Data Structures and Algorithms, Linear Algebra, Operating Systems

## Other

Dialects: Fluent in English and Mandarin

Certifications & Training: CS50x Introduction to Computer Science, Stanford Machine Learning Specialization