

MARCUS CHAN

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EXPERIENCE

Software Developer @ Miovision

Sep 2023 - Dec 2023

- Spearheaded the development of the homepage for the company's main application using **C#, Nest.js, Angular and RxJS**
- Led the creation of a new tabular component using the **revo-grid** library
- Produced extensive documentation and diagrams for my work, reducing developer onboarding time

R&D Engineer @ Ansys

Jan 2023 - Apr 2023

- Maintained and developed administration and user portals using **C#, Angular and MongoDB**
- Automated the approval and deployment of applications to an e-commerce platform, saving **20+ hours** of manual work

Software Developer @ Geotab

May 2022 - August 2022

- Developed a new API endpoint from the controller layer to the repository layer using **C#** and **PostgreSQL** to evaluate the electrical efficiency of vehicles
- Employed **test driven development** principles to implement the logic for calculating vehicle efficiency over multiple time periods and to handle time zones
- Participated in numerous architecture and design discussions with product and sales to investigate how to reduce memory usage and optimize performance

Data Analyst & Software Developer @ eMedAsia

May 2021 - Aug 2021

- Conducted analysis and constructed visualizations for a dataset using **Metabase** to optimize the sales of medical products on the platform
- Designed a **Joget** application using **Java, MySQL** and the **Facebook API** to allow vendors to easily sell their products via Facebook Live, and sends automated responses to customers via Messenger

PROJECTS

Discord Bot Developer Lead @ UW Computer Science Club

Sep 2022 - Sep 2023

- Led a team of **7 developers** to develop a Discord bot, CodeyBot, built on **TypeScript, Node.js, Sapphire, Docker and SQLite** and deployed on a self-hosted cloud platform
- Built a system from **Discord.js** and the **Sapphire** framework using object-oriented programming principles to allow the bot to have both regular and slash commands

Kaggle Profile | *Pandas, Numpy, Matplotlib, Seaborn, PyTorch, Tensorflow, Scikit-Learn, Huggingface*

- Currently a **Kaggle Expert** with **2 competition medals, 350+ notebook upvotes, 260+ notebook forks** and **140+ dataset upvotes**
- Utilized a **Deberta V3** and **LightGBM** regressor, alongside features engineered with the **nlTK** and **sentence-transformers** libraries, to build a model as part of the Kaggle competition CommonLit: Evaluate Student Summaries
- Incorporated **EfficientNet** into a **CNN** to classify butterfly images with a **87% accuracy**

WClasses | *TypeScript, Next.js, React, MongoDB, Selenium, BeautifulSoup*

- Constructed a web application using a **MERN** stack and **Next.js** to display past offerings and student reviews of Waterloo courses
- Utilized web scrapers using **BeautifulSoup** and **Selenium** to fetch and store data in the database
- Gained over **150+ views** in the first 2 weeks of production

SKILLS

Languages: JavaScript/TypeScript, SQL (MySQL, PostgreSQL), Python, C/C++, C#/.NET, Java, Bash, HTML, CSS (Sass/SCSS)

Frameworks: Node.js, Express.js, React, Next.js, Nest.js, Angular, RxJS, Pandas, ScikitLearn, NumPy, PyTorch, Tensorflow, Matplotlib, Seaborn, BeautifulSoup, Selenium, MongoDB

Tools: Linux, Google Cloud Platform, Docker, Git, Metabase, Heroku, Tableau, Microsoft Azure

EDUCATION

Bachelor of Computer Science (Data Science, Honours, Co-op) @ University of Waterloo

Sep 2020 - Apr 2025

- **CAV: 91 (MAV: 92) | CGPA: 3.9/4.0**
- Recipient of several academic scholarships with a total value of over **CAD\$37,000**
- Hobbies: Composing and playing piano covers, rock climbing