

James McCarron

jpmccarron11@gmail.com | 905-995-2511 | james-mccarron.github.io

ENGINEERING EXPERIENCE

Intel

May 2021 – Aug 2022

Software Developer, Post-Silicon Validation

- Developed features for a Python-based GUI software, enhancing data visualization using Matplotlib
- Streamlined IP validation with test-scripting and PyVisa APIs, ensuring efficient chip testing
- Optimized performance and reliability of SerDes IP for external products

EXTRACURRICULAR ACTIVITIES & PROJECTS

Toronto Housing Price Prediction and Data Visualization

Python, Pandas, BeautifulSoup, Scikit-Learn

- Developed an end-to-end machine learning solution for analyzing rental prices in Toronto, leveraging efficient web scraping, a self-built dataset, and feature engineering techniques.
- Utilized advanced geographical data visualization to gain valuable insights into the spatial distribution of rental prices and inform data-driven decision making
- Employed robust data preprocessing and hyperparameter tuning to optimize model performance for accurate price predictions

Uber Data Analysis

Python, Mage, BigQuery, Power BI

- Applied an array of cutting-edge tools to analyze Uber data. Demonstrated expertise in handling large-scale datasets, orchestrating data pipelines, and optimizing data retrieval for efficient and scalable analysis
- Employed GCP Storage and Mage Pipelining to ensure reliable and timely data extraction, transformation, and loading (ETL) processes. Leveraged BigQuery as a data warehousing solution
- Utilized Power BI to visualize and present key insights from the data

Queen's Artificial Intelligence Design Team Member

Sept 2019 – Apr 2021

QMIND, Queen's AI Design Team

- 2 years of hands-on machine learning experience
- Implemented a convolutional neural network to detect a music genre using Librosa to analyze the spectrogram of the audio input
- Employed robust data preprocessing and hyperparameter tuning to create an NLP model that generates song lyrics with 74% accuracy

Logistics Coordinator

May 2021 – Apr 2022

Canadian Undergraduate Conference on Artificial Intelligence (CUCAI)

- Orchestrated a highly acclaimed AI conference for 200 students and industry representatives
- Curated guest, speakers, workshops, and networking opportunities
- Secured an optimal \$150,000 venue through negotiation and understanding attendees' needs

EDUCATION

Bachelor of Applied Science – Mathematics & Engineering

Queen's University

SKILLS

Programming Languages Technologies

Python | SQL | PHP | Java | JavaScript (jQuery) | HTML & CSS
Kafka | Spark | Google Cloud | AWS | Power BI | XML | JSON