

Experience

Gore Mutual Insurance • Data Scientist

May 2021 – Aug 2021

- Automated the E2E delivery of market insights by using **SQL** for database querying, **Databricks (Pandas)** for **ETL** and **Power BI** to create the report. It featured Competitive Pricing Index, Loss Ratio and other KPIs, effectively eliminating **1 week long** process of raw data analysis.
- Delivered **6** descriptive and historical reports for performance management, auditing and operational tracking by building data pipelines using **SQL** in **Azure** and **DAX/Power Query** for creating visual metrics (e.g. churn analysis) on **Power BI**. Visuals included time control, hierarchical charts and matrices.
- Collaborated with the data science team to deliver value to the **business** through **analytics** during transformative period for the business.

Atlas365 Inc. • Frontend developer

Jul 2020 – Sep 2020

- Improved the UI design of 5 components in an Angular website (in Typescript) using CSS.

Game Pill • Python Developer

May 2020 – Nov 2020

- Created **3** Social Media bots in **Python** with **Selenium** along with a GUI using **Tkinter**.

LiTrans Lab – Ryerson University • Research Assistant

Aug 2019 – Sep 2019

- Enhanced the photorealism of a VR simulation to improve reaction accuracy of the experiment's subjects.

Projects

CNN From Scratch • Neural Net

- Built and optimized CNN using **Numpy only** featuring back-to-back convolutional layers, pooling layers and fully connected layers that learns using matrix-based **SGD** and **backpropagation**.
- Trained and achieved **90%** success rate on odd MNIST.

ANN From Scratch • Neural Net

- Built a fully connected ANN using **Numpy only** that learns using matrix-based **SGD** and **backpropagation** and was able to achieve up to **96%** on MNIST within **10** epochs of training.

MNIST ANN/CIFAR-10 ANN , CNN • Neural Net

- Built multiple ANNs and CNNs using **Tensorflow** and **Keras**. Achieved **97%** on MNIST with ANN. Achieved, **53%** and **78%** on CIFAR-10 with ANN and CNN respectively.

Neural Networks Notes • Notes

- A collection of personal notes on the **mathematical and computational theory** behind different neural networks as well as training techniques that spans **20** pages.

ChessML • Chess Engine

- Implemented a Chess engine in JavaScript using a Minimax Algorithm enhanced with AlphaBeta pruning.

Skills

Languages: Python, SQL, R , C++, C, Javascript

Tools: Pandas, Numpy, Tensorflow, Keras, Apache Spark, Power BI, Git, Linux

Education

University of Waterloo • Bachelor of Computer Science

2020 – 2025

Cumulative GPA : 91% ; Relevant Courses : Calculus III, Probability, Linear Algebra