# Marc Cheng

chengmarc.github.io | marccheng@outlook.com | 438 886 8425 Mathematics Specialist | Data Analyst | Data Specialist

## SKILLS

#### ■ Programming

Python, Jupyter Notebook, R, JavaScript, Node.js

- Machine Learning pytorch, keras, sklearn
- Data Science pandas, numpy, scipy, matplotlib, seaborn

#### **■ Cloud Service**

Amazon AWS, Google Colab, Google BigQuery

#### ■ Database

SQL, SSMS, Oracle, IBM DB2

# ■ Shell Scripting

Bash, CMD, PowerShell

#### ■ Languages

English, French, Mandarin

#### ■ Interest & Hobby

Skateboarding, Rock Climbing, Ukelele, Solving 3x3 Rubik's cube under one minute

## **AWARDS**

## ■ University of Toronto

2023, 2022, 2021 | Dean's List

#### ■ L'Université Laval

Concours Opti-math

2015 | 5<sup>th</sup> place in Quebec

2014 | 7th place in Quebec

#### ■ University of Waterloo

Gauss Mathematics Contests 2013 | Distinction

## **ACTIVITIES**

#### University of Toronto Anime Comic and Game

October 2021 - January 2023 President | Toronto, ON

Presented a Lunar New Year Gala with hundreds of spectators. Generated revenue of \$33000 and achieved a net profit of \$2200 through the coordination and execution of 12 events.

# **EDUCATION**

#### UNIVERSITY OF TORONTO | September 2019 - April 2023

H.B.Sc. Honours Bachelor of Science | Toronto, ON

- Mathematics Specialist (Focus in Probability/Statistics) | GPA 3.6/4.0
- Mathematics Major Statistics Major

# PROFESSIONAL EXPERIENCE

## REXEL CANADA | June 2023 - Present

# Product Data Specialist | Mississauga, ON

- Developed dataflow control process using AWS CLI.
- Developed key functionalities for import and export operations in Informatica Product 360.
- Oversaw the entire end-to-end (ERP TIBCO PIM TIBCO Hybris) testing process in the UAT environment.
- Developed a Python application to update product keywords.
- Utilized custom SQL queries in conjunction with IBM AS400 to maintain product information stored in IBM DB2.
- Participated in RexelGPT large language model project during beta testing phase.

Key Skills: AWS CLI, ERP Software, PIM Software (AS400, P360), SQL

#### DELOITTE CANADA | July 2021 - April 2022

## Data Analyst Intern (Co-op) | Toronto, ON

- Validated anti-money laundering models for Scotiabank.
- Independently completed the validation of 8 AML models written in R and Python.
- Extracted 1,000,000 to 20,000,000 entries of transactional data from an Oracle database using SQL and checked the integrity of the data using Jupyter Notebook.
- Validated redemption models for LoyaltyOne using SQL Server Management Studio and provided insights based on the conversion rate of several partners, including Air Miles and American Express.
- Valuated interest rate swaps and commodity swaps, such as natural gas, crude oil, and electricity, using the Bloomberg Terminal; collaborated with a group of seven to complete the valuation of 20 derivative contracts.

Key Skills: Python, R, SQL, Jupyter Notebook, Bloomberg Terminal

# **PROJECTS**

#### Residual Network on CIFAR-10 and CIFAR-100 Dataset

- 21M parameters for ResNet34; 44M parameters for ResNet101.
- Achieved 95.40% accuracy on CIFAR-10 test dataset.

Key Skills: pytorch, ResNet, Image Labelling, Deep Learning

## **Convolutional Neural Network for MNIST Dataset**

- Accelerated the training process by enabling CUDA on RTX-3060 (12GB).
- Achieved 98.32% accuracy on the test dataset.

Key Skills: pytorch, ConvNet, Machine Learning

#### **Quantitative Analysis on Cryptocurrency Market**

- Use unsupervised machine learning techniques to identify outliers.
- Quantified the relationship between trading volume and market capitalization by fitting a logarithmic model.

Key Skills: R, Regression, Clustering, DBSCAN