

Marc Cheng

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Mathematics Specialist | Data Scientist

SKILLS

■ Machine Learning

pytorch, tensorflow,
keras, scikit-learn

■ Data Science

pandas, numpy, scipy,
matplotlib, seaborn,
SAS, Tableau, Power BI

■ SaaS

Amazon AWS, MS Azure,
Google Colab, BigQuery,
SAP Hybris, IBM DB2,
Informatica P360

■ Programming

Python, Jupyter Notebook,
R, SQL, HTML, CSS,
JavaScript, Node.js

■ Shell Scripting

Bash, CMD, PowerShell

■ Languages

English, French, Mandarin

■ Interest & Hobby

Skateboarding, Rock
Climbing, Piano, Guitar,
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 | 5th place in Province
2014 | 7th place in Province

■ University of Waterloo

Gauss Mathematics Contests
2013 | Distinction

ACADEMIC

Multivariate Regression Analysis on Mortality Rate University of Toronto

Independently designed
univariate and multivariate
models to validate assumptions,
using the Annual Health Survey
(AHS) data from 2012 to 2013.

PROFESSIONAL EXPERIENCE

Rexel Canada | June 2023 – Present

Product Data Specialist | Mississauga, ON

- Successfully completed a year-long implementation project of the new PIM system, developed key functionalities in Informatica Product 360.
- Carried out the entire end-to-end (ERP - PIM - SAP) testing process in the UAT environment, in collaboration with the TIBCO BW5 team.
- Handled daily product quality maintenance of 200,000 unique SKUs, resolved JIRA tickets using Python scripts and custom SQL queries on IBM AS400.
- Enhanced product data quality across divisions by collaborating with industry-standard data sources and designing automated daily data quality rules.
- Developed dataflow control processes using AWS CLI and PowerShell scripts.
- Participated in RexelGPT, a now live LLM project during its beta testing phase.

Key Skills: PIM / MDM Software, ERP Software, SAP Hybris, AWS, Python, SQL

Deloitte Canada | July 2021 – April 2022

Data Analyst (Co-op) | Toronto, ON

- Validated anti-money laundering models written in R and Python for Scotiabank.
- Completed the validation of 8 AML models using both supervised and unsupervised clustering techniques, including KNN and K-Means.
- Extracted 1,000,000 to 20,000,000 entries of transactional data from an Oracle database using SQL and verified data integrity with Jupyter Notebook.
- Validated redemption models for LoyaltyOne using SQL Server Management Studio in conjunction with SAS, providing insights into customer conversion rates for Air Miles and American Express.
- Collaborated on the valuation of 20 derivative contracts, including interest rate swaps and commodity swaps (e.g., natural gas and crude oil), using Bloomberg Terminal.

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

PROJECTS

Implementation of GPT-2 Large Language Model

- Designed the model with 768-dimensional embeddings and 12-head attention.
- Trained with 162M parameters, applied weight masking to prevent overfitting.

Key Skills: Architecture Design, Natural Language Processing

Deep Residual Networks for CIFAR-10 and CIFAR-100 Dataset

- Implemented 34-layer and 101-layer residual networks for CIFAR-10 and CIFAR-100.
- Accelerated the training process by enabling CUDA on an RTX 3060 (12GB).

Key Skills: Deep Learning, Computer Vision

Quantitative Analysis in Cryptocurrency Trading

- Applied unsupervised clustering technique (DBSCAN) to identify outliers.
- Used RNN and LSTM in conjunction with fitting techniques to predict future prices.

Key Skills: Clustering, Time Series Analysis, Regression

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