

Marc Cheng

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Mathematics Specialist | Data Analyst | Data Specialist

SKILLS

■ Programming

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

■ Machine Learning

pytorch, tensorflow,
keras, scikit-learn

■ Data Science

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

■ Cloud Service

SAP Hybris, Amazon AWS,
Google Colab, BigQuery

■ Database

SQL, Oracle, IBM DB2

■ 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.

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 | Real Analysis, Nonlinear Optimization
- Statistics Major | Regression, Time Series, Markov Process, Decision Trees

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.
- Designed custom SQL queries in IBM AS400 and used Python scripts to facilitate daily product maintenance, leveraging strong skills in Excel.
- Collaborated with industry-standard product data sources to enhance and enrich product data across multiple divisions.
- 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: P360, AS400, SAP Hybris, SQL, Python, Excel, AWS CLI

DELOITTE CANADA | July 2021 – April 2022

Data Analyst Intern (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, Clustering

PROJECTS

Convolutional Neural Networks on MNIST, CIFAR-10 and CIFAR-100 Dataset

- Implemented a five-layer network for MNIST using both PyTorch and TensorFlow.
- Implemented 34-layer and 101-layer Residual Networks for CIFAR datasets.
- Applied activation functions such as ReLU and Softmax.
- Achieved 98.32% accuracy on MNIST and 95.40% accuracy on CIFAR-10.
- Accelerated the training process by enabling CUDA on an RTX 3060 (12GB).

Key Skills: PyTorch, TensorFlow, ResNet, ConvNet, Image Labelling

Quantitative Analysis on Cryptocurrency Market

- Use unsupervised clustering techniques such as DBSCAN to identify outliers.
- Use RNN and LSTM in conjunction with fitting techniques to predict future prices.

Key Skills: R, Regression, Time Series, Clustering