

Marc Cheng

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Mathematics Specialist | Data Scientist | Cat Lover

PROFESSIONAL EXPERIENCE

Rexel Canada | Product Data Specialist

June 2023 – Present | Mississauga, Head Office

- 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 testing process in the UAT environment, in collaboration with the TIBCO team in India and the SAP Hybris team in France.
- Managed daily product maintenance for 200,000 unique SKUs in ERP, using custom SQL queries on IBM AS400, resolving JIRA tickets and ensuring timely issue resolution.
- 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 Bash scripts.
- Contributed to the development of RexelGPT, an internal LLM project by optimizing performance during the beta testing phase.

Deloitte | Data Analyst (Co-op)

July 2021 – April 2022 | Toronto, Head Office

- 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.

FREELANCE EXPERIENCE

Stoic AI | Quantitative Analyst

February 2025 – Present | New York, Remote

- Developed a MAMBA State Space Model using PyTorch for forecasting price actions and applied ANOVA for feature selection to optimize model performance.
- Set up deployment and training environments on cloud platforms like RunPod, utilizing H100 GPUs to accelerate the model training process.
- Backtested trading strategies using historical data from CoinMarketCap and integrated the Binance API to automate trade execution.

CDS Sole Prop | Front-End Developer

November 2024 | Toronto, Remote

- Fully developed the front-end of doubletrends.com, incorporating custom HTML and CSS to create a responsive website optimized for both desktop and mobile devices.
- Integrated payment solution with the website for secure transaction processing.
- Implemented technical analysis tools including TD Sequential, Williams %R, and VWAP.

INDEPENDENT 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.

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).

EDUCATION

■ University of Toronto

Honours Bachelor of Science
Mathematics | GPA 3.6/4.0

SKILLS

■ Machine Learning

pytorch, tensorflow,
keras, scikit-learn

■ Data Science

pandas, numpy, scipy,
matplotlib, seaborn

■ Coding / Scripting

R, SAS, Python, Jupyter
Notebook, Node.js,
HTML, CSS, JavaScript,
Git, Bash, PowerShell

■ Databases

Oracle, MySQL, IBM DB2,
SSMS, MS Access

■ SaaS / Softwares

Amazon AWS, MS Azure,
SAP Hybris, Google Colab,
BigQuery, Informatica P360,
Tableau, Power BI

■ Languages

English, French, Mandarin

■ Interest & Hobby

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

AWARDS

■ University of Toronto

2023 | High Distinction

■ University of Toronto

2023, 2022, 2021 | Dean's List

■ L'Université Laval

Concours Opti-math
2015 | 5th Place, Provincial
2014 | 7th Place, Provincial

■ University of Waterloo

Gauss Mathematics Contests
2013 | Distinction

LINKS

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