Mathew **Maradin**

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Skills

Languages	Python, TypeScript/JavaScript, HTML, CSS, SQL
Technologies	React, Angular, NodeJS, Next.js, Express, MongoDB, AWS (S3, Athena, EC2, Lambda), Flask
Tools	Firebase, Kubernetes, Jenkins, web scrapers, RxJS, Microservices, Beautiful Soup, Tailwind

Experience

Pienso — AI Fullstack Engineer   New York City, NY | *Jan 2024 – September 2024*
- Developed RAG retrieval to give additional context in LLM response generation with LangChain and Hugging Face
- Building full-stack and AI solutions for a no-code deep learning platform to democratize the use of machine learning and provide crucial business insights to customers **(Angular, Express, Ray, PostgreSQL, AWS)**

National Bank of Canada, Financial Markets — Software Engineer   Toronto, ON | *September 2022 – April 2023*
- Pitched and led development of fullstack app to address gaps in existing client management system using **React, Node, Express and AWS RDS**. Enabled team-specific client management and permissions by implementing **JWTs with Vault**
- Rearchitected **ETL data pipeline** for trade data using **Python, AWS RDS, and MySQL** to accommodate **8M+ trades daily** with an **80% increase in speed**. Also wrote a disaster recovery system to reconstruct databases with minimal downtime
- Automated **CRUD functionality** of trade data by leveraging Fidessa FDM API, resulting in the replacement of a previously manual entry system reducing human error and speeding up the time to add data on over **200 parameters per month**
- Managed migration of tables from SQLite and historical data over to **AWS Athena** and **S3** respectively

Rogers Communications — Software Engineer   Toronto, ON | *January 2022 – May 2022*
- Developed frontend features for recurring customer payments in **Angular** that contributed to an overhaul of payment processing flow, resulting in a **52% adoption rate & saving 5MM annually**
- Led development of **6 customer facing** e-commerce features for a user base of **10 million+** customers using **Angular, RxJS** and **NgRx** on an Agile team
- Developed **microservices** for Rogers and Fido retail websites to differentiate unique styling on a shared codebase

TOOLBX — Product Engineer   Toronto, ON | *May 2021 – August 2021*
- Led design and development of an analytics dashboard built with **Javascript, Retool, PostgreSQL, Salesforce API and Figma** used by both product and executive teams to inform organization decisions and long-term strategy
- Overhauled bulk order processing using a new Javascript-based Retool app that scaled to **100+ orders per day, reducing time to invoice by 83%** on orders valued at over $30MM per month

Projects

AI UFC Fight Prediction Model — AI prediction model
- **Trained Random Forest model** in Python based on past fight data to attempt to make informed decisions on future fights
- Performed web scraping and cleaning using **Python** and **Beautiful Soup 4** to acquire fight data from all UFC events

Nexum — 2nd place UW Blockchain hackathon sponsor stream
- **DeFi marketplace** to buy and sell datasets to train AI models, with smart contracts deployed on the **ETH blockchain**
- Built proof of concept ledger using **Jackal decentralized storage** to verify user ownership or purchases of datasets
- Fullstack functionality built with **React, Next.js and Firebase** to manage client interactions

5G Betting & Fan Experience Platform — Article | Rogers hackathon overall winner
- Brought onto Waterloo's startup incubator, Velocity to continue development of fan experience centred around community and live trivia based on 5G puck and player tracking data

Education

University of Waterloo — Bachelor of Nanotechnology Engineering Minor in Computing   *Sep 2020 – May 2025*
- **Courses**: Python, Computer Networking, Computational Methods, Statistics, Electronic Circuits
- **Involvement**: Waterloo Engineering Society (Directorship and Orientation Leader), Duke of Edinburgh Gold Award