

## Experience

### Tech consulting and Engineering

January 2020 – Present

- Architected and deployed custom end-to-end solutions for startups and established firms, modernizing legacy infrastructures with modern API-driven architectures.
- Optimized operational expenditures, delivering over \$200,000 in annual savings through the implementation of bespoke automation, custom tooling, and cloud-native integrations.
- Designed intuitive UX and system architectures that democratize access to complex, cutting-edge technologies for non-technical stakeholders and end-users.
- Strategized digital transformations, evaluating client technical debt and implementing roadmaps for scalable growth and system security.

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### Pioneer Engineering — Software Engineer

April 2023 – April 2024

- Served as the lead architect for an embedded system in pharmaceutical manufacturing, successfully recovering and delivering a \$3M production system following a critical implementation failure.
- Improved system reliability and stability, contributing to a 99.9% uptime in a production environment.
- Published comprehensive technical documentation detailing system architecture and operational logic to facilitate long-term maintenance and future scaling.

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### LocaMax Inc. — Project Manager

February 2021 – March 2023

- Managed high-value real estate asset optimization with complex technical and logistical constraints, ensuring projects remained aligned with financial and regulatory milestones.
- Translated ambiguous stakeholder requirements into concrete technical execution plans, facilitating clear communication between financial teams and technical executors.
- Led technical due diligence and problem-solving efforts, designing internal systems that increased operational efficiency and project quality

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### NeuWal — Technologist

March 2019 – December 2020

- Architected and maintained a high-traffic production website, resulting in a 50% increase in user engagement.
- Migrated legacy company infrastructure to cloud-based systems, designing robust data management and automations.
- Optimized system performance and cross-platform responsiveness, ensuring a seamless architectural experience across mobile and desktop environments.

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## Selected Engineering Projects

### Local AI

- Built a modular AI assistant utilizing Python, Flask, and PyTorch with a focus on memory retrieval and dynamic model selection.
- Designed a vector-based embedding pipeline and action-logging system for transparent system decision-making.

### Retail Sales Analytics Platform

- Developed a large-scale data pipeline using Databricks, PySpark, and Spark ML to ingest, clean, and aggregate sales data.
- Built a medallion architecture (bronze/silver/gold layers) and engineered features for recommendation models.
- Trained and evaluated ML models to suggest optimized purchasing strategies.

### Quantum Outlier Detection

- Implemented anomaly detection techniques using both classical and quantum algorithms.
- Explored Grover-style search and quantum counting to detect financial irregularities using quadratic speedup principles.
- Gained experience translating theoretical algorithms into working simulations.

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## Skills

**Languages:** C, Python, Java, JavaScript, SQL, PyTorch, TensorFlow, Scikit-learn, Spark, PySpark,

**Systems & Fundamentals:** Linux, Bash, Concurrency, Memory Management, Operating Systems Concepts

**Backend & Infrastructure:** REST APIs, Relational Databases, NoSQL, Docker, CI/CD, Git, GitHub

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## Education

### Toronto Metropolitan University

Bachelor of Science in Computer Science (Honours & Distinction) — 4.0 / 4.0 GPA

June 2025