

Aditya Patel

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EDUCATION

Toronto Metropolitan University

Bachelor of Science (Hons.), Computer Science (Co-op)

September 2021 - April 2026

Toronto, ON, Canada

- Coursework: Machine Learning, Computer Security, Database Systems, Networks, Operating Systems, Data Structures & Algorithms
- Certifications: Advanced Learning Algorithms – Stanford University ([Certificate](#))

EXPERIENCE

Wealthsimple

Software Engineering Intern

May 2025 - August 2025

Toronto, ON, Canada

- Building scalable backend systems and data infrastructure for applied algorithmic investing under the Order Generation Team

Wealthsimple

Software Engineering Intern

May 2024 - August 2024

Toronto, ON, Canada

- Engineered **trading algorithm** optimization by developing new **distributed data infrastructure** with **AWS** Redshift & S3; Built ETL pipelines & auto-spawning 500+ containers on **Kubernetes** to parallelize batch multiprocessing, **cutting execution runtime by 80%**
- Served as **technical owner (DRI)** & built **full-stack trading simulation platform** using Ruby on Rails, TypeScript & Python GraphQL, enabling **14-minute** experimental trading runs that manages \$12+ billion & accelerating algorithm change adaptation timeline by 3x

Royal Bank of Canada

Software Engineer Intern (12 months)

May 2023 - April 2024

Toronto, ON, Canada

- Architected **distributed log parsing system** for enterprise **CI/CD pipeline** using Python, **Kafka** middleware, Spark, AWS, PostgreSQL and Elasticsearch, reducing multi-region deployment time by 45% and streaming real-time application deployment data
- Developed Helios **AI tool** for deployment data insights by designing **RAG system** with LangChain agents, **fine-tuned LLMs (Mistral-40B, Llama 2)** on private AWS along with embeddings vector database, improving deployment error **resolution time by 60%**
- Built and deployed robust **10+ ETL pipelines** for distributed DevOps data ingestion, leveraging Apache Airflow DAGs to optimize generating datasets with 82% lower latency, enabling scalable **ML model training platform** for DSE and SRE teams

Scotiabank Capital Markets

Trading Floor Software Developer Intern

May 2022 - August 2022

Toronto, ON, Canada

- Built & delivered **4 end-to-end full-stack web tools** for trading operations (email platform, file validation, JSON-To-Excel, SSH file transfer) using ASP.NET, C#, React, and SQL, handling **100K+ monthly user traffic** & boosting trading floor operational efficiency
- Designed **high-performance C# API Server** using asynchronous low-latency programming for automating post-trade logging with JSON-to-Excel conversion, **boosting reliability by 40%** using optimized AWS ALB load balancing, plus configurable depth parsing

Stealth Startup

Lead Full-Stack Developer

October 2021 - February 2022

Toronto, ON, Canada

- Developed full-stack e-commerce platform for an Enactus TMU-incubated startup, leveraging Spring Boot, React and MongoDB
- Achieved **\$650/month reduction in AWS costs** by implementing Terraform & AWS Auto Scaling for optimized EC2 compute usage

PROJECTS

DeskGenius | [Website](#) - Frontend 3D rendering engine using React & Three.js for visualizing your desktop setups in a virtual space.

JustServers | [GitHub](#) - Low-level Go network servers for protohackers.com (TCP|UDP protocol), orchestrated on AWS EC2 using Terraform.

Continuesage | [GitHub](#) - Backend LangChain AI server for Continue.dev, serving inference on LLMs hosted via AWS SageMaker.

TECHNICAL SKILLS

Programming Languages: Python, C++, C, Go, TypeScript, JavaScript, SQL

Technologies: React, Node.js, Django, TensorFlow, PyTorch, GitHub Actions, Datadog

Tools: Git, AWS, Kubernetes, Docker, Terraform, Apache Airflow, Kafka, Spark, MongoDB, Redis, Temporal, Linux