

# Aditya Patel

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## Technical Skills

**Languages:** Python, C++, C, Go, TypeScript, JavaScript, C#, Java, HTML, CSS, SQL

**Tools:** React, Node.js, Django, AWS, Kubernetes, Docker, Terraform, Git, Kafka, Spark, Airflow, Temporal, MongoDB, Tensorflow, Pytorch

## Experience

### Wealthsimple

Software Engineering Intern

May 2025 - Present

Toronto, ON, Canada

- Developed **Temporal (Python)** cluster & workflows for trading internal transfer operations, handling over **10K+ runs/day** using specialized processing workers deployed on AWS EKS with KEDA-driven HPA auto-scaling via Datadog optimizing resource allocation

### 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 EKS **Kubernetes** to parallelize batch multiprocessing, cutting execution runtime by 80%
- Served as **technical owner (DRI)** for **full-stack simulation platform** using Python **GraphQL**, Ruby on Rails & **React**, simulating **14-minute** trading runs that generates **2M+ orders** managing **\$12+ billion** & experimenting order generation comparison to production

### Royal Bank of Canada

Software Engineer Intern (12 months)

May 2023 - April 2024

Toronto, ON, Canada

- Architected **distributed log parsing infrastructure** for enterprise **CI/CD pipeline** in 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 & deployed **10+ ETL pipelines** using Airflow DAGs to scale **ML training platform** by streamlining DevOps data ingestion

### 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** trading operations (email platform, ETF security data pricing, JSON-To-Excel, SSH-file-transfer) using ASP.NET, TypeScript & SQL, handling **50K+ monthly traffic** & boosting trade operational workflow 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 e-commerce platform frontend for 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.

**BudgetChat** | [GitHub](#) - Low-level Go network chatting server (TCP|UDP network protocol), Terraform orchestrated on AWS EC2.

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

## Education

### Ryerson University (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](#))