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 May 2025 - Present

Software Engineering Intern

Toronto, ON, Canada

• Developed **Temporal (Python) cluster** for trading operation workflows (internal transfer & withdrawals), handling over **20K+ runs/day** and deployed temporal workers on AWS EKS with optimized resource allocation using KEDA-driven HPA auto-scaling via Datadog

Wealthsimple May 2024 - August 2024

Software Engineering Intern

Toronto, ON, Canada

- Engineered **trading algorithm** optimization by developing new **distributed data infrastructure** with **AWS** RedShift & S3; Built ETL pipelines & auto-spawning 500+ container pods on **Kubernetes** to parallelize batch multiprocessing, cutting execution runtime by 80%
- Served as **technical owner (DRI)** for full-stack **simulation platform** using Ruby, React & **Python GraphQL server**, simulating **14-min** trading runs that generate **2M+ orders** managing **\$10+ billion** to experiment with trading algorithm changes against production runs

Royal Bank of Canada

May 2023 - April 2024

Software Engineer Intern (12 months)

Toronto, ON, Canada

- Architected **distributed log parsing infrastructure** for enterprise **CI/CD pipeline** to stream real-time application deployment data using Python, **Kafka** middleware, Spark, AWS, PostgreSQL and Elasticsearch, reducing multi-region deployment time by 45%
- Developed Helios AI tool for deployment data insights using Agentic RAG system with fine-tuned LLMs (Mistral-40B, Llama 2) deployed on AWS SageMaker alongside embeddings vector database, improving deployment error resolution time by 60%
- Built & deployed 10+ ETL pipelines using Airflow DAGs to scale ML training platform by streamlined DevOps data ingestion

Scotiabank Capital Markets

May 2022 - August 2022

Trading Floor Software Developer Intern

Toronto, ON, Canada

Toronto, ON, Canada

- Built & delivered **4 end-to-end full-stack web tools** for trading operations (email platform, ETF security pricing, SSH-file-transfer & file validator) using ASP.NET, TypeScript & SQL, handling **50K+ monthly traffic**, equipping trading desks with reliable web tools
- Designed high-performance **C# API server** using low-latency asynchronous design for automated post-trade logging using configurable JSON-to-Excel conversion & **increasing API reliability by 40%** by optimized AWS ASG + ALB (load balancing)

Stealth Startup

October 2021 - February 2022

Lead Full-Stack Developer

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- Developed e-commerce platform frontend for Enactus TMU-incubated startup, leveraging Spring Boot, React and MongoDB
 Achieved \$650/month reduction in cloud 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 server** for chatting (TCP|UDP network protocol), Terraform orchestrated on EC2.

Continuesage | GitHub - Backend LangChain FastAPI AI server for Continue.dev, serving inference on LLMs hosted via AWS.

Education

Ryerson University (Toronto Metropolitan University)

September 2021 - April 2026

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

Toronto, ON, Canada

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