

# Aditya Patel

6478923968 | adityakdpatel@gmail.com | linkedin.com/in/thisisadityapatel | github.com/thisisadityapatel | Toronto, ON  
[www.aditya-patel.com](http://www.aditya-patel.com)

## EDUCATION

### Toronto Metropolitan University (Prev. Ryerson University)

Sep. 2021 – Present

*Bachelor of Science (Honours), Computer Science Co-op (GPA: 3.91)*

*Toronto, Ontario, Canada*

- **Relevant Courses:** Algorithms, Unix, C & C++, Operating Systems, Probability, Statistics, Software Engineering
- **Certifications:** Supervised Machine Learning, by Stanford Online & DeepLearning (<https://bit.ly/4agMpMY>)

## PROGRAMMING SKILLS

**Languages:** Python, C++, C, C#, Java, TypeScript, JavaScript, SQL, NoSQL, KQL, GraphQL, HTML, CSS, Unix, Elixir

**Frameworks:** React.js, Node.js, Django, Next.js, Redux, LangChain, ASP.NET, Flask, Vue.js, jQuery, Tailwind CSS

**Tools:** Docker, Git, GitHub, Kubernetes, OpenShift, AWS, Airflow, Kafka, Spark, MongoDB, Elasticsearch, Pandas, NumPy

## PROFESSIONAL EXPERIENCE

### Incoming Software Engineer Intern

May 2024 – Sep. 2024

*Wealthsimple*

*Toronto, Ontario, Canada*

- ML & LLM's Data Products Team

### Software Engineer Intern (12 months Co-op)

May 2023 – April 2024

*Royal Bank of Canada - Helios Team*

*Toronto, Ontario, Canada*

- Superheaded development of **RBC's in-house VS-Code AI autopilot extension**, powered with Falcon-40B, GPT-4 and Mistral Instruct-7B LLMs hosted on AWS, employing LangChain FastAPI back-end microservice and JavaScript VS-Code Webview GUI, alongside vector database embeddings, supporting **AI-driven software development assistance**
- **Architected log parsing system infrastructure** for Github Actions CI/CD pipeline with AWS S3, PostgreSQL, Apache Spark, Kafka, and Python, optimizing log analysis and streaming real-time actionable pipeline deployment data
- Developed **full-stack dashboards** leveraging micro-frontend architecture in React.js and Typescript, utilizing Django backend alongside algorithmic computations for **DevOps DORA insights, improving enterprise leadtime by 32%**
- Built and managed multiple **Python micro-service DAGs** for scheduled distributed systems data collection, streamlining Elasticsearch integration through Apache Airflow, yielding **82% low latency efficiency** improvements

### Trade Floor Software Developer Intern

May 2022 – Sep. 2022

*Scotiabank - Global Banking and Markets*

*Toronto, Ontario, Canada*

- Engineered an advanced JSON to Excel conversion web application for **automating secure and efficient trade logging**, achieving **27% reduced latency than MSFT API**, alongside multiple product features like multi-threading computations, varying depth parsing and robust security features making it an integral tool for the capital markets trading team
- Built scalable **full-stack email communication tool** using ASP.NET, C#, jQuery etc, to store and manage Scotiabank's internal employee communication emails, accommodating **over 60,000 monthly site traffic** and deployed internally
- Collaborated on a back-end **C# REST API SSH-File-Transfer**, following SDLC, leveraging SCP and SFTP protocols, facilitating encrypted file transfer between remote UNIX servers, achieving significant **38% accelerated processing rate**
- Created a **data validation and correction tool** using React.js, ASP.NET and C#, enabling efficient validation of Excel and CSV files with customizable configurations, **enabling Traders to trace and resolve bulk data issues swiftly**

### Software Developer

Oct. 2021 – Feb. 2022

*TOThrive Startup - Enactus*

*Toronto, Ontario, Canada*

- Conceptualized and architected **responsive and scalable web applications** for an e-commerce start-up incubated under Enactus-TMU DMZ, utilized React.js, Flask and leveraged SQLite3 database
- **Effectively articulate technical challenges and solutions** to facilitate understanding among engineers & stakeholders

## PROJECTS

**DeskGenius** (<https://deskgenius.vercel.app/>) | *React.js, Three.js, Vector Geometry, Tailwind CSS*

June 2023

- **Front-end 3D Rendering Engine**, using Next.js and Three-Fiber, for visualizing table arrangements before purchasing
- Utilizes **graphic ray tracing, texture mapping** and advanced algorithms to optimize rendering performance **reducing computational overhead**, resulting in a **highly responsive UI** and immersive user experience, uploaded to open source

**PetroForecast** ([thisisadityapatel/astroforecast](https://thisisadityapatel/astroforecast)) | *Python, React.js, Docker Compose, SQLite3, FastAPI*

May 2023

- **Full Stack Machine Learning App** to predict and analyze US heating oil futures
- Utilizes Prophet library for time-series regression and containerised using docker-compose for easy installation and testing

**Continuedev Sagemaker Endpoint** ([thisisadityapatel/continuedevSagemakerEndpoint](https://thisisadityapatel/continuedevSagemakerEndpoint)) | *LangChain*

Nov. 2023

- **Python API using LangChain** for [continue.dev](https://pypi.org/project/continue-dev/) extension to support LLM models hosted via AWS Sagemaker