Aaryan Patel

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EDUCATION

University of Waterloo   Waterloo, ON
Bachelor of Computer Science, Minor in Economics   *June 2027*
- Artificial Intelligence Specialization

TECHNICAL SKILLS

Languages: C/C++, TypeScript, SQL (Postgres), Java, Python
Databases/Frameworks: .NET, FastAPI, Node.js, Fastify, Express, Mongo, Redis, Next.js, Redux
DevOps: Git, Docker, Kubernetes, CircleCI, Terraform, Jenkins, GitHub Actions
Certifications: Google Cloud Certified Associate Cloud Engineer, AWS Certified Cloud Practitioner

EXPERIENCE

Backend Developer   May 2025 – Aug 2025
Scrawlr   *Vancouver, BC*
- **Contributed to scalable backend APIs** for browser-extension platform, using Node.js + Fastify with Postgres and Redis to layer real-time conversation and personalized content onto any webpage
- Standardized codebase by **authoring reusable Cursor rules** that enforce layered architecture, uniform error handling, and code consistency, enabling faster, conflict-free feature rollouts across teams
- **Architected an AI-driven code-gen pipeline** that ingests product docs & Cursor rules to auto-scaffold Fastify services, database schemas, cache layers, and Vitest tests, **cutting API development from months to days**

Software Engineer Intern   Sep. 2024 – Dec. 2024
RBC Capital Markets   *Toronto, ON*
- Worked on building a multi-asset trading analytics platform using **React, Next.js, Kubernetes**, and **MongoDB**, leveraging **AI-driven trade reports** enhance market predictions and decision-making for traders
- Utilized **Redux** for state management and **TanStack Query** for API integration and caching, reducing API call latency by **40%** and ensuring real-time updates for **datasets exceeding 20K rows**
- Introduced interactive **Liquidity Matrix** feature to analyzes & visualizes FX market liquidity across **24 trading hours**, providing actionable insights with an **interactive and concise interface** to improve trading decisions
- Leveraged **Highcharts**, **AG Grid**, and **React Virtualized** to improve index analytics performance by **35%** with dynamic visualizations & auto-complete filtering, delivering a seamless user experience

Application Developer   Jan. 2024 – May 2024
CGI Inc.   *Toronto, ON*
- Specialized in building and managing **cloud-based API ecosystems** using **Google Cloud Platform** as well as deploying, monitoring, and managing enterprise solutions on the cloud
- Designed and deployed a **PostgreSQL** database integrated with Keycloak, streamlining authentication process
- Leveraged **Terraform** to automate infrastructure provisioning, which optimized deployment time by up to **70%**, significant enhancing operational efficiency

Junior Software Developer   May 2023 – Aug. 2023
JANA Corporation   *Aurora, ON*
- Developed backend solutions using **C#, ASP.NET, and SQL Server,** contributing to the architecture, implementation, and maintenance of pipeline integrity management application
- Optimized SQL queries to enhance the performance of **REST API**, which improved **dynamic data fetching**
- Introduced new visualization feature that displayed risk level results for **predictive risk analysis**, aiding in better decision-making for pipeline integrity management
- Led migration of APIs to a **high-performance serialization library**, boosting API performance by up to **50%**

PROJECTS

UW Data Science Club | *Next.js, Express.js, PostgreSQL*
- Engineered a **normalized, indexed PostgreSQL** database supporting **1,400+ members and 25+ events**
- **Redesigned API architecture** with layered structure for improved modularity, maintainability, and scalability

G.R.A.C.E. | *FastAPI, Next.js, PostgreSQL, Deepgram, OpenAI, Cartesia, Docker*
- Social companion with **real-time voice-to-avatar pipeline (Pipecat)**, delivering **<1s lip-synced 3D avatars**
- Built **WebSocket server** with **Postgres** chat history for a caregiver dashboard with **conversation analytics**