Aaryan Patel

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EDUCATION

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

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 rule packs** 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 Developer Intern — Sep. 2024 – Dec. 2024
RBC Capital Markets — *Toronto, ON*
- Worked on building a multi-asset trading analytics platform using **React, Next.js, Kuberentes**, and **MongoDB**, leveraging **AI-driven trade reports** enhance market predictions and decision-making for traders
- Utilized **Redux** for state management and **React 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

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
- Led the optimization of SQL queries, significantly enhancing the performance of the data management **REST API**, which improved **dynamic data retrieval** and display
- Introduced new visualization feature that displayed risk level results for **predictive risk analysis**, aiding in better decision-making for pipeline integrity management
- Lead migration of APIs to a **high-performance serialization library**, boosting API performance by up to **50%**

PROJECTS

G.R.A.C.E. | *FastAPI, Next.js, PostgreSQL, Deepgram, OpenAI, Cartesia, Docker* — June. 2025
- **AI-powered social companion** that engages with isolated users in lifelike **face-to-face conversations**
- **Building** real-time voice-to-avatar pipeline using **Pipecat** to deliver lip-synced 3D avatar in < **1s latency**
- **Creating** WebSocket server with **Postgres** chat history for caregiver dashboard with **conversation analytics**

STYLit | *Next.js, Express.js, MongoDB, MediaPipe* — Jan. 2025
- AI-powered virtual dressing room using **image segmentation** and **pose estimation** to enhance online shopping
- Integrated real-time **body pose detection** models to ensure accurate clothing placement and user satisfaction
- Created an intuitive, interactive experience for virtual try-ons, offering a **seamless user experience**

CERTIFICATIONS

AWS Certified Cloud Practitioner	May 2024 – May 2027
Google Cloud Certified Associate Cloud Engineer	Mar. 2024 – Mar. 2027

TECHNICAL SKILLS

Frontend: TypeScript, Next.js, React, Angular, Node.js, React Query, Redux
Backend: C# (.NET), Go (Gin), Python (FastAPI, Django), JS (Fastify, Express), SQL (Postgres), MongoDB, Redis
DevOps: Git, Docker, Google Cloud, AWS, Kubernetes, CircleCI, Terraform, Jenkins
Misc: C/C++, Java, Supabase, Stripe, Cloudflare Workers, Pandas