

Prem Patel

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EDUCATION

University of Waterloo

Honours Bachelor of Computer Science (BCS)

Waterloo, ON

Expected Dec. 2026

- GPA: 3.8; Coursework: Data Structures, Algorithms, Object-Oriented Programming, Operating Systems, Databases, Computer Architecture, Functional Programming, Machine Learning, AI

Wilfrid Laurier University

Honours Bachelor of Business Administration (BBA)

Waterloo, ON

Expected Dec. 2026

- Awarded President's Gold Scholarship (\$4,000) for academic excellence

EXPERIENCE

Software Developer Intern

Kinaxis

Jan. 2025 – Dec. 2025

Ottawa, ON

- Contributed to **server (C++)** and **agent/worker layers** (Node.js/TypeScript, Java), leveraging **multithreading** and **WebSocket connections** to run and debug **embedded algorithms**, process data via a custom query engine, and build constraint-based **optimization models** for supply chain planning
- Designed **guardrails** in **server** and **optimizer** layers to prevent **resource overuse**, improving **stability** during large-scale runs; reduced **lock contention** by ~30% and built a **logger** to enhance **throughput analysis**
- Extended **Jenkins AFT pipelines** with **unit, integration, and end-to-end tests**; developed a configurable **C# performance testing framework** to simulate diverse workloads and **profile latency bottlenecks**
- Proactively showcased new **features** and **design outcomes** in **10+ cross-team demos**, working as one of a few active developers in a fast-paced **Kanban** team with shifting priorities
- Recognized by a senior developer for consistently detailed **pull requests** and clear **design explanations**, improving team understanding and accelerating code reviews

Software Engineer Intern

AutoTrader

Jan. 2024 – May. 2024

Toronto, ON

- Developed and optimized **Python microservices** across **30+ automotive brands**, leveraging **Pandas** and a **REST API** to accelerate OEM data processing by **8x** for partners like Toyota and BMW
- Engineered **Azure pipelines** in **Python** to automatically generate and deliver monthly performance reports to **150+ dealerships**, querying data from **Redash** and managing reporting for select dealer groups
- Optimized **data processing algorithms** with the **Tabula** library, reducing manual effort, saving hours each month, and increasing data accuracy by up to **85%**
- Led new hire **training**, mentoring a new full-time employee and interns, and improved team onboarding by promoting clear communication through effective **documentation** and **version control**

PROJECTS

NBA Analytics Dashboard (Full-Stack Web App) 🌐

May 2025 – Jul 2025

- Built a **full-stack Analytics Dashboard** using **React, Flask (Python)**, and **PostgreSQL** to visualize NBA player and team performance.
- Designed and optimized **SQL queries, materialized views, and indices** for scalable database retrieval
- Implemented **role-based authentication and triggers** for secure data management and audit logging

Barber Review Mobile App (Android/Kotlin) 🌐

Sep 2024 – Dec 2024

- Developed an **Android mobile app** using **Kotlin, Compose UI**, and **MVVM architecture** to connect with barbers based on user-centric traits such as sociability and hairstyle specialty
- Integrated the **Google Places API** for barbershop data, along with **Firebase authentication** and **cloud database storage** for secure, scalable data management
- Followed **Scrum sprints** and documented **user stories**, using **GitLab** for version control and feature tracking

TECHNICAL SKILLS

Languages: C++, Python, Java, C#, JavaScript, TypeScript, Go, HTML/CSS, SQL, Kotlin, Swift, Bash, R

Developer Tools: Git, Visual Studio, VS Code, Node.js, Jest, Yarn, Maven, Jenkins, Docker, Helm, GCP, Azure, AWS

Frameworks & Libraries: .NET, React, Spring, Jest, Flutter, Flask, Firebase, Pandas, NumPy, PyTorch, Matplotlib