

MANPREET SINGH

Waterloo, ON | (416) 930-4426 | sing2470@mylaurier.ca | linkedin.com/in/manpreet-swe | github.com/Manpreet-Singh-Kamboj

EDUCATION

Wilfrid Laurier University

Master of Applied Computing (Co-op)

Sep 2025 – Apr 2027

GPA: 3.9 / 4

Chitkara University

Bachelor of Engineering (Computer Science)

Jul 2021 – May 2025

GPA: 3.7 / 4

WORK EXPERIENCE

CoreAI Technologies

Jun 2025 – Dec 2025

Software Developer

Remote

- Engineered a health dashboard using **Next.js** and **TanStack Query**, optimizing data fetching via custom caching and visualizing biomarker trends with interactive **Recharts** components.
- Developed Health Snapshot categorization system organizing biomarkers across blood, cardiovascular, and performance metrics with detailed information pages, simplifying health tracking workflows.
- Implemented guest PIN access in Android Smart Lock app using **Kotlin** and **Seam SDK**, enabling temporary door access with NFC authentication, PIN validation, and expiration handling.

SalesCode.ai

Jun 2024 – Dec 2024

Software Engineer Intern

Gurugram, India

- Built geo-targeted banner system with **Spring Boot (Java)** backend, **Flutter** widgets, **AWS S3** storage, and **EC2** deployment with auto-scaling, serving 100K+ sales reps and achieving 15% higher CTR.
- Optimized **Flutter** app performance through widget refactoring and lazy loading patterns, reducing memory footprint from **89MB** to around **62MB**, improving overall app performance.
- Collaborated with 5 engineers in **Agile/Scrum** sprints to deliver 5+ production **Flutter** features, implementing **unit tests** and incorporating code review feedback reducing post-release bugs.

PROJECTS

Qure | [Frontend](#) | [Backend](#)

Node.js, Express.js, React Native, PostgreSQL, Socket.IO, Redis, Docker

- Developed full-stack clinic queue system with **Node.js/TypeScript** backend, **React Native** mobile app, role-based access for patient, staff, and admin workflows, with **JWT** authentication.
- Engineered real-time queue system with **Socket.IO** room-based architecture achieving <100ms latency; implemented fault-tolerant token management via atomic **PostgreSQL** transactions to prevent race conditions.
- Built asynchronous job pipeline with **BullMQ** and **Redis** for **Cloudinary** uploads, reducing upload latency by **70%**. Containerized with **Docker** and deployed on **Render** cloud platform.

MyTrackr | [Source Code](#)

Java, XML, Android, Firebase, Gemini SDK, ML Kit, Cloudinary

- Developed Android expense tracking app using **ML Kit** OCR and **Gemini AI** for automated receipt scanning with **AlarmManager** based expiry notifications, reducing manual data entry time by 80%.
- Implemented automated budget tracking with real-time expense aggregation, multilingual support, CSV export, cloud-synced **Cloudinary** receipt storage, and comprehensive **JUnit** test coverage.

Study Adda | [Demo](#) | [Source Code](#)

React.js, MongoDB, Express.js, Node.js, Javascript

- Built student and instructor portal LMS using **React.js**, **Node.js**, **Express.js**, and **MongoDB** with **JWT** auth, **Razorpay** payments, video streaming, instructor analytics, and time-based discounts.
- Implemented course creation workflow, student enrollment tracking, video progress monitoring with playback tracking, and **Cloudinary** media management for lecture uploads.

LEADERSHIP & ACTIVITIES

SKILLVARZ 1.0 Hackathon | [Semifinalist](#)

May 2025

- Built immersive 3D web experiences (**Food Drone** delivery simulation and **Amaya Cafe**) using **Three.js**, **React Three Fiber**, and **GSAP**, collaborating with a 5-member team.

Google Developer Student Clubs (GDSC), Chitkara University

Dec 2022 – Feb 2024

- Coordinated event planning, venue setup, and resource allocation for technical hackathons and events with 100+ participants.

TECHNICAL SKILLS

Languages: Java, JavaScript, TypeScript, Python, Kotlin, C++, SQL, Bash/Zsh

Frameworks & Libraries: React.js, Next.js, Node.js, Express.js, React Native, Flutter, Spring Boot, Android SDK, Three.js, React Three Fiber, GSAP, Tanstack Query, Prisma

Databases: PostgreSQL, MongoDB, Firebase, Redis

Tools & Technologies: AWS (EC2, S3), Docker, Git, Jira, BullMQ, Socket.IO, RESTful API Design, Junit & Jest

Core Competencies: Real-time Systems, Mobile Development, Full-Stack Development, Database Design & Optimization, Data Structures & Algorithms, 3D Web Graphics