

# Manpreet Singh

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## Education

### Wilfrid Laurier University

Master of Applied Computing (Co-op)

Sep 2025 – Apr 2027

GPA: 11 / 12

### Chitkara University

Bachelor of Engineering (Computer Science)

Jul 2021 – Aug 2025

GPA: 9.23 / 10

## Work Experience

### CoreAI Technologies

Software Developer

Jun 2025 – Dec 2025

Remote

- Engineered a real-time Dashboard UI using **Next.js** and **TanStack Query** to visualize 15+ biomarkers with customizable pinning, target-setting, and interactive charts tracking recent entries.
- Developed Health Snapshot categorization system organizing biomarkers across blood, cardiovascular, and performance metrics with detailed information pages, simplifying health tracking workflows.
- Enhanced production Android Smart Lock application in **Kotlin** using **Seam SDK**, implementing 2 new features and resolving 15+ bugs across NFC door access, thermostat control, and guest-pin management.

### SalesCode.ai

Software Engineer Intern

Jun 2024 – Dec 2024

Gurugram, India

- Developed geo-targeted advertisement banner system using **Spring Boot**, custom **Flutter** widgets, **MySQL**, and **AWS EC2** deployment, increasing click-through rates by 15% across 100K+ sales reps.
- 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** 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 management system with **Node.js/TypeScript** backend, **React Native** mobile app, and role-based access supporting patient, staff, and administrator workflows with **JWT**-based authentication.
- Engineered real-time queue system using **Socket.IO** room-based architecture for instant updates and implemented fault-tolerant token management using atomic **PostgreSQL** transactions to prevent race conditions.
- Built asynchronous job processing pipeline using **BullMQ** and **Redis** for **Cloudinary** image uploads, containerized with **Docker** and **Docker Compose** for local development, and deployed to **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, reducing manual data entry time by 80% and improving expense categorization accuracy.
- Implemented automated budget tracking with real-time expense aggregation, multilingual support, CSV/PDF export, and cloud-synced receipt storage, simplifying financial management for users.

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, enrollment tracking, progress monitoring, and **Cloudinary** media management.

## 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, Tanstack Query

**Databases:** PostgreSQL, MongoDB, Firebase, Redis

**Tools & Technologies:** AWS (EC2, S3, ECR), Docker, Git, Jira, Slack, Word, Excel

**Core Competencies:** RESTful API Design, Real-time Systems, Mobile Development, Microservices Architecture, Database Design, Data Structures & Algorithms, Object-Oriented Design, Unit Testing (JUnit & Jest)