

Manpreet Singh

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Education

Wilfrid Laurier University

Master of Applied Computing (Co-op)

Sep 2025 – Present

GPA: 3.9 / 4

Chitkara University

Bachelor of Engineering (Computer Science)

Jul 2021 – Aug 2025

GPA: 3.7 / 4

Work Experience

CoreAI Technologies

Software Developer

Jun 2025 – Dec 2025

Remote

- Implemented guest PIN access feature in production Android Smart Lock app using **Kotlin** and **Seam SDK**, enabling temporary door access with NFC authentication, PIN validation, and expiration handling logic.
- Built health tracking dashboard with **Next.js** and **TanStack Query** for data fetching and caching, visualizing biomarker trends using **Recharts** with customizable pinning, target thresholds, and metric categorization.
- Developed Health Snapshot categorization system organizing biomarkers across blood, cardiovascular, and performance metrics with detailed information pages, simplifying health tracking workflows.

SalesCode.ai

Software Engineer Intern

Jun 2024 – Dec 2024

Gurugram, India

- Optimized **Flutter** app performance through widget refactoring and lazy loading patterns, reducing memory footprint from **89MB** to **62MB**, improving overall app responsiveness and user experience.
- Built geo-targeted banner system with custom **Flutter** widgets and **Spring Boot** backend, deployed on **AWS EC2** with **S3** storage and auto-scaling, serving 100K+ sales reps, achieving 15% higher CTR.
- 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 **React Native** clinic queue management mobile app with **Node.js/TypeScript** backend supporting patient, staff, and administrator role-based workflows with **JWT**-based authentication and real-time queue updates.
- 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 with **AlarmManager** based expiry notifications, reducing manual data entry time by 80% and improving accuracy.
- Implemented automated budget tracking with real-time expense aggregation, multilingual support, CSV/PDF 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 and thumbnail generation.

Technical Skills

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

Mobile Frameworks: Android SDK, React Native, Flutter, Firebase (FCM, Firestore), ML Kit, Gemini SDK

Backend & Tools: Node.js, Express.js, Spring Boot, PostgreSQL, MongoDB, Redis

Tools & Technologies: AWS (EC2, S3), Docker, Cloudinary, Git, Jira

Core Competencies: Mobile Development, Android SDK, Cross-Platform Development, Push Notifications, RESTful API Integration, Mobile Performance Optimization, Unit Testing (JUnit & Jest)