

# Manpreet Singh

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## Education

<b>Wilfrid Laurier University</b> Master of Applied Computing (Co-op)	<b>Sep 2025 – Present</b> GPA: 3.9 / 4
<b>Chitkara University</b> Bachelor of Engineering (Computer Science)	<b>Jul 2021 – Aug 2025</b> GPA: 3.7 / 4

## Work Experience

<b>CoreAI Technologies</b> <i>Software Developer</i>	<b>Jun 2025 – Dec 2025</b> <i>Remote</i>
<ul style="list-style-type: none"><li>Implemented guest PIN access feature in production Android Smart Lock app using <b>Kotlin</b> and <b>Seam SDK</b>, enabling temporary door access with NFC authentication, PIN validation, and expiration handling logic.</li><li>Built health tracking dashboard with <b>Next.js</b> and <b>TanStack Query</b> for data fetching and caching, visualizing biomarker trends using <b>Recharts</b> with customizable pinning, target thresholds, and metric categorization.</li><li>Developed Health Snapshot categorization system organizing biomarkers across blood, cardiovascular, and performance metrics with detailed information pages, simplifying health tracking workflows.</li></ul>	

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<b>SalesCode.ai</b> <i>Software Engineer Intern</i>	<b>Jun 2024 – Dec 2024</b> <i>Gurugram, India</i>
<ul style="list-style-type: none"><li>Optimized <b>Flutter</b> app performance through widget refactoring and lazy loading patterns, reducing memory footprint from <b>89MB</b> to <b>62MB</b>, improving overall app responsiveness and user experience.</li><li>Built geo-targeted banner system with custom <b>Flutter</b> widgets and <b>Spring Boot</b> backend, deployed on <b>AWS EC2</b> with <b>S3</b> storage and auto-scaling, serving 100K+ sales reps, achieving 15% higher CTR.</li><li>Collaborated with 5 engineers in <b>Agile</b> sprints to deliver 5+ production <b>Flutter</b> features, implementing <b>unit tests</b> and incorporating code review feedback reducing post-release bugs.</li></ul>	

## Projects

<b>Qure</b>   <i>Frontend   Backend</i>	<b>Node.js, Express.js, React Native, PostgreSQL, Socket.IO, Redis, Docker</b>
<ul style="list-style-type: none"><li>Developed <b>React Native</b> clinic queue management mobile app with <b>Node.js/TypeScript</b> backend supporting patient, staff, and administrator role-based workflows with <b>JWT</b>-based authentication and real-time queue updates.</li><li>Engineered real-time queue system using <b>Socket.IO</b> room-based architecture for instant updates and implemented fault-tolerant token management using atomic <b>PostgreSQL</b> transactions to prevent race conditions.</li><li>Built asynchronous job processing pipeline using <b>BullMQ</b> and <b>Redis</b> for <b>Cloudinary</b> image uploads, containerized with <b>Docker</b> and <b>Docker Compose</b> for local development, and deployed to <b>Render</b> cloud platform.</li></ul>	

<b>MyTrackr</b>   <i>Source Code</i>	<b>Java, XML, Android, Firebase, Gemini SDK, ML Kit, Cloudinary</b>
<ul style="list-style-type: none"><li>Developed Android expense tracking app using <b>ML Kit</b> OCR and <b>Gemini AI</b> for automated receipt scanning with <b>AlarmManager</b> based expiry notifications, reducing manual data entry time by 80% and improving accuracy.</li><li>Implemented automated budget tracking with real-time expense aggregation, multilingual support, CSV/PDF export, cloud-synced <b>Cloudinary</b> receipt storage, and comprehensive <b>JUnit</b> test coverage.</li></ul>	

<b>Study Adda</b>   <i>Demo   Source Code</i>	<b>React.js, MongoDB, Express.js, Node.js, Javascript</b>
<ul style="list-style-type: none"><li>Built student and instructor portal LMS using <b>React.js</b>, <b>Node.js</b>, <b>Express.js</b>, and <b>MongoDB</b> with <b>JWT</b> auth, <b>Razorpay</b> payments, video streaming, instructor analytics, and time-based discounts.</li><li>Implemented course creation workflow, student enrollment tracking, video progress monitoring with playback tracking, and <b>Cloudinary</b> media management for lecture uploads and thumbnail generation.</li></ul>	

## 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)