

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 <i>Software Developer</i>	Jun 2025 – Dec 2025 <i>Remote</i>
<ul style="list-style-type: none">Built health tracking dashboard backend API with Next.js and TanStack Query for optimized data fetching and caching, visualizing biomarker trends 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.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.	
SalesCode.ai <i>Software Engineer Intern</i>	Jun 2024 – Dec 2024 <i>Gurugram, India</i>
<ul style="list-style-type: none">Built geo-targeted advertisement banner system using Spring Boot backend with RESTful APIs, MySQL, AWS S3 for banner storage, deployed on AWS EC2 with auto-scaling, serving 100K+ sales reps, 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 sprints to deliver 5+ production Flutter features, implementing unit tests and incorporating code review feedback reducing post-release bugs.	

Projects

Qure <i>Frontend Backend</i>	Node.js, Express.js, React Native, PostgreSQL, Socket.IO, Redis, Docker
<ul style="list-style-type: none">Developed Node.js/TypeScript backend for clinic queue management system with RESTful APIs, role-based access control for patient, staff, and administrator workflows with JWT-based authentication and session management.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.Designed PostgreSQL schema with Prisma ORM implementing indexed queries for optimization, built asynchronous job pipeline using BullMQ and Redis, containerized with Docker, deployed to Render with automated migrations.	
Study Adda <i>Demo Source Code</i>	React.js, MongoDB, Express.js, Node.js, Javascript
<ul style="list-style-type: none">Built LMS backend using Node.js, Express.js, and MongoDB with RESTful APIs, JWT authentication, Razorpay payment integration, video streaming endpoints, instructor analytics aggregation, and discounts logic.Implemented course creation, enrollment tracking, progress monitoring APIs, and Cloudinary for media management.	
MyTrackr <i>Source Code</i>	Java, XML, Android, Firebase, Gemini SDK, ML Kit, Cloudinary
<ul style="list-style-type: none">Developed expense tracking app with Firebase backend integration, ML Kit OCR, and Gemini AI for receipt scanning with alarm-based notifications, reducing manual data entry time by 80% and improving categorization accuracy.Implemented real-time expense aggregation, multilingual support, CSV/PDF export, cloud-synced receipt storage, and comprehensive JUnit test coverage for backend integration logic.	

Technical Skills

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

Backend Frameworks: Node.js, Express.js, Spring Boot, Prisma ORM, Drizzle ORM

Frameworks & Libraries: React.js, Next.js, React Native, Flutter, Android SDK

Databases: PostgreSQL, MongoDB, Firebase, Redis, MySQL

Tools & Technologies: AWS (EC2, S3), Docker, Socket.IO, BullMQ, Git, Jira

Core Competencies: RESTful API Design, Database Design & Optimization, Real-time Systems, Authentication & Authorization, Microservices Architecture, Asynchronous Processing, Unit Testing (Jest & JUnit)