

Hardik Rana

Software Engineer

(437) 427-9892 • hrana01234@gmail.com • [LinkedIn](#) • Toronto, ON

SUMMARY

Motivated and detail-oriented Software Engineer with **7+ years of full-stack** and mobile application development. Expertise in designing scalable microservices, AI integration, and cloud deployments. Proficient in **C++, Java, C#, Kotlin, Swift, TypeScript, Python, Node.js, React, GraphQL, MongoDB**, and **AWS** services.

TECHNICAL COMPETENCIES

Programming: C++, Java, C#, Kotlin, Swift, JavaScript, TypeScript, Python, SQL/MySQL, HTML, CSS

Frameworks & Libraries: React, Node.js, Express.js, Apollo GraphQL, Flask, Angular, MFC

Mobile Development: iOS & Android (Xcode, Android Studio, React Native)

AI & Data: Google Generative AI (Gemini), LangChain, embeddings, cosine similarity

Cloud & DevOps: AWS S3, EC2, Elastic Beanstalk, Docker

Tools: Visual C++, OpenCV, FFMPEG, Jira, GitHub, Visual Studio Code, MS Office, IntelliJ

Additional Skill Areas: Agile Technology, Image Processing, Object-Oriented Design, GUI Design

RELEVANT EXPERIENCE

AI-Driven Community Platform

Jan 2025 – April 2025

- Architected federated Node.js/Express microservices (auth-service & community-service) with Apollo Federation for user, post, help-request, alert, event, and review domains.
- Designed Mongoose schemas for User, Post, Help, Alert, Event, and User Interaction.
- Integrated Google Gemini via LangChain for AI features:
- **Discussion Summaries:** AI-generated topic summaries of long post threads.
- **Event Optimization:** Predicted optimal event timing based on local engagement data.
- **Volunteer Matching:** Extracted keywords from help requests and matched users by interest via federated queries.
- Built React frontend with Apollo Client and React Bootstrap: role-based interfaces for Residents, Business Owners, Community Organizers.
- Secured authentication with JWT (including role & interests) and managed cookies across services.
- Deployed services on AWS: S3 for static assets, EC2 & Elastic Beanstalk for hosting, DynamoDB for session data.

Mobile Application Developer, Student Researcher (P/T)

November 2024 – April 2025

Centennial College, Toronto, ON

- Designed and developed native Android applications using Kotlin and Java, adhering to modern development practices such as MVVM architecture and dependency injection (Dagger/Hilt).
- Built iOS applications using Swift, implementing CoreData and SQL for efficient local data storage.
- Integrated RESTful APIs and Firebase for real-time data synchronization and push notifications.
- Developed custom UI components, ensuring seamless and intuitive user experiences across both iOS and Android platforms.
- Leveraged Xcode and Android Studio for debugging, profiling, and optimizing application performance.
- Implemented secure authentication mechanisms using OAuth2 and JWT, ensuring data protection.
- Utilized Kotlin coroutines and Swift's async/await for asynchronous tasks.

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Mobile Application Developer, Student Researcher (P/T)

April 2024 – August 2024

WIMTACH Technology Access Centre - Centennial College, Toronto, ON

- Lead the development of a mobile application using **React Native** for the frontend, ensuring cross-platform compatibility and a seamless user experience across **iOS** and **Android devices**
- Implement robust backend solutions using **Node.js** and **Express.js**, providing efficient communication between the mobile application and server-side logic
- Leveraged React Native's component-based architecture to create reusable UI components, optimizing development time and maintaining consistency in the application's design
- Implemented user authentication and authorization features using JWT (JSON Web Tokens), enhancing the security of the mobile application and protecting user data
- Utilized asynchronous programming techniques in both frontend and backend development to ensure smooth and responsive user interactions, even with potentially slower network connection

Senior Software Engineer

July 2021 - March 2024

WiseDV, Vadodara, India (Remote)

- Collaborate with Development team to design and implement backend solutions for web applications
- Implement user authentication and authorization mechanisms for secure access to resources
- Participate in code reviews and contributed to continuous improvement of development processes
- Utilize front-end languages and libraries such as **HTML/CSS**, **JavaScript**, and frameworks like **Angular** to create fast and responsive user interfaces
- Design and optimize **MySQL Server** databases, writing queries to enhance performance/scalability
- Engineer Payout solutions, optimizing networking protocols (TCP/UDP) for streaming quality in **C++**; leverage **FFMPEG** transcoding/**OpenCV** for real-time image processing and seamless video-audio streaming
- Troubleshoot production processes to identify the cause of issues and effectively resolve problems
- Effectively communicate with clients and team members to address project requirements
- Integrated secure authentication and authorization mechanisms for user data protection.
- Deployed applications using **AWS** services, ensuring scalability and reliability.

Software Engineer

July 2018 - June 2021

WiseDV, Vadodara, India

- Develop deep understanding of software development lifecycle including design, coding, and testing, creating highly functional application sets for a large software development company
- Utilize **Jira** for maintaining bug tickets and manage project source code and versioning using **GitHub**
- Troubleshoot and resolve issues by analyzing call stacks, trace files and performance data, ensuring the root cause of bugs is identified and addressed
- Designed and optimized RESTful APIs to support efficient communication between front-end and back-end systems.
- Led development of front-end solutions using React and back-end optimization with Node.js.
- Collaborated with cross-functional teams, ensuring seamless project execution within Agile frameworks.

EDUCATION

Software Engineering Technology Advanced Diploma

Jan. 2024 – April 2025

Centennial College, Toronto, ON

Focus Areas: Java Programming | Mobile App Development | Software Systems Design

Bachelor of Computer Science and Engineering

May 2014 - June 2018

Maharaja Sayajirao University, India