ANKIT MHATRE
Senior Software Engineer

Harrison, NJ | ✉ ankitmhatre@hotmail.com | 💼 /ankitmhatree | ⌨ /ankitmhatre | ✉ /ankitmhatre.in | 📞 (917)-319-6399

▶ Google Play Store Portfolio | 🍎 Apple app store portfolio

SUMMARY

Dynamic Mobile and Full Stack Developer with 6+ years of experience with extensive experience in architecting and developing innovative applications across multiple platforms. Proficient in programming languages including Java, Kotlin, Python, JavaScript, and Dart and frameworks such as React, Node.js, and Flutter. Experienced in cloud technologies like AWS and containerization with Docker, alongside a strong foundation in Agile methodologies. Demonstrated success in leading projects from concept to completion, emphasizing user-centered design and performance optimization. Eager to leverage technical expertise and leadership skills in fast-paced environments to deliver impactful solutions.

SKILLS

Design: Zeplin, Figma, Sketch, InDesign, Illustrator, Photoshop

Programming Languages: Java, Kotlin, Python, **JavaScript** (JS), **TypeScript** (TS), Dart, SQL, C, Bash, PHP, **Swift**

Web static and communication: HTML/CSS, JSON, XML, RSS, RPC, SSH, MQTT, TCP, UDP, COAP (Learning **OSCORE**)

Web & Backend Development: NodeJS, Express.js, **React.js**, Next.js, Redux.js, NoSQL (MongoDB, Redis), SQL (PostgreSQL, MySQL), Laravel

Mobile Development: **React Native**, **Flutter**, Android Studio, Xcode, MVVM, MVC, RxJS, RxJava, KMP, Jetpack Compose, **Android**

Other Mobile Dev tools: Firebase App Distribution, AWS Amplify, Android NDK, NFC & BLE sensor integration, Chromaprint(NDK)

Cloud & DevOps: AWS (EC2, S3, Lambda, RDS), Firebase, Docker, Kubernetes, GitHub Actions, Gitlab CI, Jenkins

Security & Architecture: Burp suite, Wireshark, OAuth 2.0, JWT, API Security, Microservices, Caching, Load Balancing, **Unity5**

Collaboration Tools: Jira, Trello, Confluence, Git(GitHub, Bitbucket, Gitlab), Postman, Miro, Teams, Slack, Asana

Leadership & Project Management: Agile (Scrum, Kanban), Team Leadership, Cross-functional Collaboration, **Project Management** (PMI)

Certifications: Scrum Master (NASBA), **Project Management** (PMI)

WORK EXPERIENCE

Co-founder, Product & Full Stack Engineer   **April 2020 – September 2022**
Testbuzz (testbuzz.in)   *Mumbai, India*

- Led mobile app development initiatives, architecting a robust **CI/CD** pipeline with GitHub Actions and **Firebase App Distribution**, which enhanced testing reliability and reduced change **review times by 70%.**
- Utilized **Docker** Compose to containerize microservices on **AWS EC2**, resulting in a 90% decrease in deployment time through streamlined orchestration and automated workflows.
- Integrated Lunr.js with React.js for advanced client-side searching capabilities, optimizing query performance and reducing database load by 35% for real-time data retrieval.
- Designed and implemented secure RESTful APIs using **OAuth 2.0** and **JWT**, enforcing stringent security policies, including token caching and request forwarding to safeguard user data against unauthorized access.
- Boosted Average Revenue Per User (**ARPU**) by **211**% after deploying an integrated email and notifications module with Flutter and Firebase Cloud Messaging (FCM), enhancing user engagement and retention.
- Leveraged **ReduxJS** for global state management in React, ensuring a seamless and consistent data flow across the application, complemented by **Redux Toolkit** for efficient state management in the **Flutter** ecosystem.
- Managed a 5-member cross-functional team, orchestrating collaboration and ensuring adherence to Agile practices, utilizing **JIRA** for effective sprint planning and tracking progress.

Software Engineer   **December 2019 – April 2020**
Jio Tesseract Imaging Limited (tesseract.in)   *Mumbai, India*

- Developed a high-performance video compression engine using **FFMPEG** and **Celery**, achieving a **38% reduction in video file size** through advanced encoding and parallel processing. Employed **HTTP Live Streaming (HLS)** and **Real-Time Messaging Protocol (RTMP)** for adaptive bitrate streaming, ensuring optimized performance and low-latency delivery.
- Engineered a **WebRTC-based video calling service** for the XR headset (JIO Glass), leveraging **TURN servers** and **STUN** for **NAT traversal**, enhancing connectivity for immersive communications. Implemented **ICE (Interactive Connectivity Establishment)** for efficient peer-to-peer communication.
- Authored an **orientation SDK** for the Mixed Reality Operating System, achieving **71 FPS** performance via **AIDL** on the **AOSP**. Utilized an **IMU ICM20948 sensor** for precise spatial tracking and implemented sensor fusion algorithms for real-time orientation detection.
- Integrated a **6 Degrees of Freedom (6-DOF) hand controller** with an in-house Mixed Reality OS-enabled board, implementing algorithms for real-time motion tracking and gesture recognition. Maintained **60ms latency** using **Bluetooth Low Energy (BLE) 4.2**, ensuring a responsive hand controller user experience.
- Designed and developed a modular architecture for the immersive Mixed Reality App Store using **Microservices**, ensuring scalable and efficient deployment. Implemented **Docker** for containerization, facilitating consistent environments across the headset and web UI.

Lead Mobile Application Developer   June 2018 – December 2019
1337Lab LLC   *New York, NY*

- Developed **Note a Call**, a patented iOS app enabling seamless call recording, overcoming iOS restrictions, using **React Native**.
- Engineered **Secure Me** with **React Native**, **Native Android**, and **BLE**, integrating NFC and Bluetooth for secure, real-time communication.
- Created **GSM terminator**, which reduced communication costs by 85% through a GSM-to-VOIP switching system using a Raspberry Pi and mobile app built with **Native Android**.
- Built an **Air Quality Indexing Sensor** app using **React JS**, visualizing data from 11 sensors, deployed in 150+ industry locations.

PROJECTS

Product Manager & Developer   August 2024 – August 2024
Chitraan (chitraan.com)   *New York, NY*

- Conducted market research to identify user pain points and target audience needs.
- Prioritized and implemented core features, including tagging systems, advanced search, and insights tracking.
- Designed a user-friendly interface focused on ease of navigation and minimal cognitive load.
- Led the launch on iOS and **Android**, executing a comprehensive **App Store Optimization(**ASO) strategy to enhance visibility.
- Developed a systematic feedback mechanism using Flutter's **provider** and **BLoC (Business Logic Component)** architecture, enabling continuous improvement through real-time user insights and analytics integrated with Firebase Crashlytics and Google Analytics.
  read more

Product Manager & Designer   April 2023 – August 2023
Snacko (snacko.health)   *New York, NY*

- Product Development: Led the design and feature prioritization of a robust app featuring a database of **3.9 million** food products, ensuring comprehensive nutritional insights with an average search response time of **2.9 seconds.**
- Technological Implementation: Utilized AWS EC2, Docker, and Docker Compose for application deployment; integrated Tesseract OCR and QR code parsing for enhanced user experience.
- User Engagement: Developed a user-friendly interface using **Flutter**, enabling seamless meal logging and progress tracking.
- Data Security: Implemented data encryption and privacy measures to safeguard user information.
- Market Presentation: **Successfully pitched Snacko** at **TechCrunch Disrupt 2023** in San Francisco, showcasing the app's innovative features and potential impact on health and wellness.   (Many more projects, find them here)

EDUCATION

Pace University, Master of Science (MS) in Computer Science | Product Management & Artificial Intelligence   **September 2022 - May 2024**
University of Mumbai, Bachelor of Engineering (BEng) in Computer Engineering   **August 2014 - June 2018**

PUBLICATION

Team Lead & Developer   January 2018
Microsoft Kinect-based rehabilitation for post-stroke patients recovery (View the Research Paper)

- Developed physiotherapy system using Unity5 Gaming & Microsoft Kinect v2.0, enabling cameras to track users' physical exercises and send data to physicians, allowing for collaborative physical therapy & increasing patient willingness by 43%.
- Implemented a tracking system for real-time patient progress, leading to 20% faster recovery times.

Author & Developer   August 2017
AndroidSiriWave (github.com/ankitmhatre/AndroidSiriWave)

- **Developed an Android library** that replicates the Siri waveform effect from iOS 8, enhancing the visual appeal of applications.
- Facilitated easy integration via JitPack, with straightforward setup instructions for users.
- Achieved significant adoption with 120 downloads in the past month and 34 downloads in the past week.
- Garnered community engagement with 31 stars, 4 watchers, and 8 forks on GitHub, indicating interest from other developers.

LEADERSHIP

Head of Design   January 2016 - August 2018
Computer Society of India – RAIT Chapter

- Spearheaded design initiatives for multiple major technical fests, enhancing event branding and engagement
- Oversaw the visual layout and design of Cozine and Technophilia magazines, collaborating with an editorial team to create compelling content for engaging readership.
- Led a team of 4 designers, implementing streamlined design processes that increased project delivery speed.