

SATYAM KUMAR

Android HMI Developer | 4 Years of Experience

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📍 Bengaluru, India

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EXPERIENCE

Android HMI Developer | Case New Holland

Android, Java, Kotlin, MVVM, Android Jetpack, RxJava, Dagger, SQL

📅 Oct 2022 – Present

📍 Gurugram, India

- Developed precision technology **Autoguidance** solution for the **CNH AFS Pro 1200** display of the Tractor, Combines and Sprayer that auto activates **Headland Turn Sequences** in the agricultural fields, follows defined swaths, shows **Real-time Grain Tank** status and **Auto Detects** new field.
- Designed and implemented **state machine**, **caching** mechanism, and optimized architecture to significantly reduce frequent database hits by **55%** and enhance overall system performance by decreasing load time.
- Performed POC, developed features from scratch, enhanced system performance using optimized architecture and codes, participated in peer code review, fixed bugs, and released products that enhanced efficiency, productivity, and reduced operational costs of the customer by **35-40%**.

Associate-I Engineer | Capgemini | OEM: Renault Group

Android, Kotlin, MVVM, Jetpack Libraries, Coroutines, Koin, AIDL

📅 Jan 2021 – Oct 2022

📍 Bengaluru, India

- Contributed to the automotive **ADAS Parking Assistance** android application for the **RENAULT Cars**, by seamless integration of **Alliance Android SDK**, and **component libraries**.
- Analyzed diverse factors such as **camera**, **sonar**, **sensor data**, and **vehicle/user modes** to assist users and make driving convenient, enhance road safety, and result in seamless traffic flow.
- Developed features, fixed defects, written Unit and UI test cases, ensured more than 90% code coverage and met delivery deadlines efficiently by following **Agile** methodology.

PROJECTS

Social Distancing Alert System Android App | 🔄 | 🔗

Android, MVVM, Kotlin, BLE, Jetpack Libraries, Room, Coroutines

- Developed **Social Distancing Alert System** android app using **Bluetooth Low Energy (BLE)** to maintain **Social Distancing** during COVID-19.
- The application offers **Real-time Notification Alerts**, **Vibration**, and **Visual Status Indicators** within proximity of **2 meters** with **4 levels** of granularity.

QR Patterns Analyzer Android Application | 🔄 | 🔗

Kotlin, MVVM, Coroutines, Android Jetpack, CameraX, ZXing, Glide

- Developed a **QR Patterns Analyzer** application that opens the camera using the **Camerax** library and analyzes the frame.
- Using the **ZXing** library, it looks for the **QR code** in the frame, finds out the **finder pattern** position in the **QR code** and draws the same on the camera preview.

Snapdocs PDF Scanner Android Application | 🔄 | 🔗

Kotlin, MVVM, Coroutines, Google Mobile Service, Glide

- Developed a **Snapdocs** app that scans the docs, crops the edges and converts to pdf.

Twitter Sentiments Data Visualization Dashboard | 🔄 | 🔗

Python, Streamlit, Pandas, Numpy, WordCloud, Matplotlib, Plotly

- Created a **Dynamic Web Dashboard** to visualize public sentiment on **Twitter** using **Kaggle** datasets of US airline sentiments categorized as **positive**, **negative**, and **neutral**, and displayed on a world map.

EDUCATION

B.Tech | Computer Science & Engg.

Darbhang College of Engineering, Darbhanga

📅 July 2016 – Dec 2020

CGPA : 8.81

TECHNICAL SKILLS

- **Programming Languages:** Java, Kotlin, C, SQL
- **Android Development:** MVVM, SOLID, Design Patterns, Coroutines, Dependency Injection, Dagger, RxJava, Retrofit, OkHttp, GSON, Glide, ViewModel, WorkManager, Room, Navigation, Paging, RecyclerView, Firebase, Authentication, RESTful APIs, Android SDK, CameraX, ZXing, BLE, Bluetooth, IPC, AIDL, JUnit, Mockito, Espresso.
- **IT Constructs:** Object-Oriented Programming, Data Structures & Algorithms, Clean Architecture, Reactive Programming, Multi-threading, Problem Solving, Debugging, Linux, Bash Scripting, CAN, Protocol Buffers, Agile.
- **Tools/ IDE:** Android Studio, Gradle, Maven, ADB, Proguard, JIRA, Polarion, VCS, Git, Gerrit, Gitlab, Latex, CANalyzer.

CODING PLATFORMS

- **LeetCode:** Solved 110+ Problems 🔄
- **HackerRank:** Solved 100+ Problems 📄
- **Hackathon:** Participated in Hackathons 🔗

CERTIFICATIONS

- Certified Embedded Associate issued by Vector.
- Got **NPTEL Gold Certification** for Programming in Java from **IIT Kharagpur** with a score of 94%.

ACHIEVEMENTS

- Awarded with **CNH Employee of the Quarter Award** for reducing database query hit by implementing Cache and fixing Prod Blockers.
- Awarded with **CNH SPOT Recognition Award** and **Team Excellence Award** for contributing to developing the Autoguidance solution.
- B.Tech Computer Science & Engineering **branch topper** out of 75 students.

PUBLICATIONS

👤 IEEE Conference Proceedings

- Social Distancing using Bluetooth Low Energy to Prevent the Spread of COVID-19. (2021). doi:10.1109/Confluence51648.2021.9377096

ResearchGate: 📄

| Portfolio: 🌐