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### **PROFILE**

Experienced C++ and Android Developer with 3+ years in Android development and system-level programming. Skilled in building scalable automotive and mobile solutions using C++, Android SDK/NDK, and Java. Strong in cross-platform optimization, cloud integration, and leading development efforts. Seeking a role focused on practical solutions and continuous growth.

#### **SKILLS**

**Languages** : C, C++, Java

Scripting : Bash Scripting, Python

Mobile : Android SDK/NDK, AOSP, HAL, Jetpack Cloud & Protocols : AWS IoT, MQTT, S3 bucket, JITR, SFTP

OS / Platforms : Linux (Ubuntu), Android

Tools & Framework : Docker, Code Sonar, JIRA, Git, G-Unit, GDB, Valgrind

Core Interests : Data Structures, Algorithms, Blockchain, Linux System Programming

#### PROFESSIONAL EXPERIENCE

Associate Engineer II, Software Engineering – Harman Connected Services Pvt. Ltd. (Bangalore) Feb 2024 – Present

Project : PSA – STL (Automotive Security Team)

- Designed and implemented functionalities for Android-based Automotive systems, improving integrity and reliability across deployments.
- Contributed to the integration process of the TimeSecure protocol by analyzing HAL service behavior and assisting in flow validation across system components.
- Optimized integrity-checking logic, resolving SOP-critical issues and enhancing security compliance.
- Led defect triaging and resolution cycles, collaborating with cross-functional teams to unblock features and deliver timely fixes.

**Environment**: C++, STL, AOSP, HAL, Java, Linux, Android Native, Git, Multithreading, Code Sonar, Valgrind

# Research Engineer – The Hi-Tech Robotic Systemz Ltd. (Gurugram)

Jun 2022 – Jan 2024

Project : Novus Aware – Attention & Behavior Monitoring (ADAS)

- Heading ADAS R&D on Android platform, integrating innovative tech for enhanced driver behavior through pioneering Driver Monitoring State application. Committed to preemptively alerting drivers about risky behaviors for safer road.
- Developed FOTA upgrade protocol for ADAS using UART communication protocol, ensuring seamless and efficient updates for connected devices.
- Integrated AWS IoT services with ADAS IoT-enabled devices, enabling secure and scalable communication between devices and the cloud platform

**Environment**: C,C++, STL, Java, Linux, Shell Scripting, Android SDK, Android NDK, IPC, SFTP, CAN/FOTA,

AWS IoT, Git, Python, Multithreading, MQTT, Docker, S3 bucket, Valgrind, Data Structures and Algorithms

### Intern – The Hi-Tech Robotic Systemz Ltd. (Gurugram)

Mar 2021- Jun2022

## Project : Novus Aware – Attention & Behavior Monitoring (ADAS)

- Implemented driver image upload, critical warning notifications, power tampering alerts, and automated warning video features.
  Facilitated seamless transfer of corresponding metadata between device and Linux host over Wi-Fi utilizing the secure SFTP protocol with RSA authentication.
- Designed and developed advance ADAS application for Android platform and modules from technical requirement with cross-functional teams to define, design, and launch new features. (Enhancing Production Efficiency with 500%).
- Developed the Real-time data uploading solution for the data to cloud and Leveraged the JITR of AWS-IoT.

**Environment**: C, C++, STL, Java, Linux, Shell Scripting, Android SDK, TCP, SFTP, CAN/FOTA, Docker,

AWS IoT, Git, Python. Doxygen, Valgrind, S3 bucket, Data Structures and Algorithms

### <u>Android Intern - New Software Solution LLP (Bhopal)</u>

Aug 2020 - Jan 2021

# **Projects : Android Applications development**

- Chalo Pandit Ji Built a location-based Android app enabling users to book verified Hindu priests for local religious services.
- Self-help Audio Redesigned and enhanced a mobile app for streaming audiobooks authored by independent writers.
- Photo-Copy Developed a native app for placing online print orders and filling applications via nearby trusted vendors.

**Environment**: Java, Android Studio, Rest APIs, Postman, Adobe XD, Firebase, Jira, Agile, Data Structures and Algorithms