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WORK EXPERIENCE

2022-06-01 - Present

Bluebinaries Engineering and Solutions

Associate Engineer Digital Cockpit Systems

- Summary:
- 2.7 years of experience in the development and testing of different infotainment system applications
- Proficient in developing Android applications using Java, Kotlin, and XML
- Hands-on experience in debugging the source code using Logcats, Toast messages and Exceptions
- Worked on UI development including features like Relative Layouts, Constraint Layout, Tab Layout, Multiple Tabs, Screen Transitions, Navigation Drawer, Scrolling view, and Splash Screen
- Experience in working with Hardware in Loop (HIL) test benches using the ECU Test tool and NI Teststand
- Hands-on experience with the Redwood RF simulator and working with DAB, RDS, AM, FM
- Worked on automating and executing test cases in NI Teststand
- Knowledge of ISTQB concepts

EDUCATION

June 2020 - June 2022

National Institute of Technology, Silchar

Masters in Technology (CIA) - 8.1

Completed Masters in Technology in Control and Industrial Automation with CGPA of 8.1. This program provided me with a deep understanding of Control Theory, and Automation Techniques and their applications in different industrial settings.

June 2015 - June 2019

RCC Institute of Information Technology

Bachelor of Technology (EE) - 7.1

Completed Bachelor of Technology in Electrical Engineering with a CGPA of 7.1. During my studies, I gained a strong foundation in circuit analysis, and electromagnetism alongside hands-on experience with different engineering tools and technologies.

PROJECT

September 2024 - January 2024

Digital Cockpit Proof of Concept

- Worked on the development of the Test Automation Framework
- Worked on Visual Basic for Applications for defining and implementing different functionalities of the automation tool
- Developed Navigation application using third-party APIs
- Developed navigation features like displaying the current location, and showing navigation routes in navigation mode with voice assistance, location search and Points of Interest (POIs)

October 2023 - August 2024

HIL Testing of Infotainment System for Aptiv

- Worked in close collaboration with software requirement engineers
- Developed and modified test cases based on requirements converting manual test steps into automated test steps
- Converting test steps into test sequences using a Labview-based sequence generator
- Participated in setting up the wiring harness of the HIL setup
- Training new members of the project regarding the test bench setup and the complete testing environment including the development and execution of test cases

October 2022 - October 2023

Digital Cockpit Solution Development

- Designed and developed a Remote Control Application where the user can perform certain functionalities from the phone side using Bluetooth
- Developed functionalities of Remote Control Application like lock screen, wake up, brightness control and volume control
- Worked on upgrading the Navigation application to the latest and stable versions
- Worked on AOSP emulator in Linux system
- Identified and analyzed issues related to the integration of the Navigation application into AOSP

July 2022 - September 2022

Automation Testing of Infotainment System for FEV

- Performed automation testing on Bluetooth-Interoperability features
- Used Android Debug Bridge to control Android mobile functionalities
- Executed both Manual and Automation testing using an HIL setup consisting of an Infotainment system
- Used Digital Radio Tester for simulating DAB and DRM stations

SKILLS

- Programming Languages: Python, Java, Kotlin, XML
- Tools: Jira, Polarion, tk-Logger, Redwood RF Generator, ECU Test tool, NI Teststand, Android Studio, Figma, Office RibbonX Editor, Visual Basic for Applications, Microsoft 365, Outlook
- Libraries: openpyxl, configparser, xlwings
- Operating Systems: Windows 7, Windows 10 Pro, Linux, Android, AOSP
- Protocols: CAN, UDS
- Automotive Standard: AUTOSAR

KEY ACHIEVEMENTS

- Guided team members about efficient utilization of test automation environment consisting of different tools and techniques for effective execution of test cases. This helped them to execute test cases that surpassed the daily target requirements and achieve maximum utilization of the test environment
- Able to meet 100% on-time delivery without compromising on the quality of work. Collaborate effectively with requirements teams to design and develop flawless test cases
- Developed Android applications with smooth user interface. Improved runtime performance using multithreading which enabled multiple processes within the app to run simultaneously