

## PROFESSIONAL EXPERIENCE

### **Harman Connected Services Corporation India Private Limited**

**Client: Mercedes-Benz Research & Development India**

#### **Product Software Engineer**

**July'22 – Present**

*Headed the novel project on video camera application for Mercedes-Benz S-Class car line*

- Liaised with the Infotainment team to equip robust communication with other components regarding all storage activities leading to **early detection of abnormalities in the storage devices**.
- Led the R&D to enable detection and usage of Storage device (USB) in Qemu emulator to remove dependency of testing with hardware and **migrate to virtual testing in PC, reducing time and increasing efficiency** in releasing the required deliverables to mainline production.
- Designed and developed Burst Mode functionality for Dash camera and Multi-Purpose Interior Camera (MPIC) introducing the long press feature **to provide user-friendly interface to customer**.
- Integrated the User Profile system with the application for **privacy protection of User data** for both internal and external storage.
- **Headed a team 3** junior resources **on the project architecture and IPC protocols** employed in communication with other applications.

#### **Associate Software Engineer**

**Aug'21 – June'22**

*Occupant Motion Sensor System developed as the next generation project of deployed Mercedes-Benz car lines in 2021*

- Developed use cases for an Occupant Motion Sensor application responsible in realizing all the communication, coordination and high-level business logic resulting in **reduction of CPU consumption from 5% to 3%**.
- Co-ordinated and executed various levels of integration testing for the Use cases by using mock of SOME/IP signal, CAN signal, and other services part of the system, to ascertain end-to-end working of the system before release testing.
- Implemented functional test cases for unit testing **increasing the code coverage by 28%** and supporting the functional testing in the Car Test Bay.

*Additional contributions and value-add*

- Code review to ensure optimization and memory efficiency of application.
- Analysis of bugs in real-time testing and providing immediate solution for the defects.
- Capturing detailed documentations and other blueprints on High-level and Low-level designs as part of continuous engagement on Architecture with clients.
- Envisioned and implemented a quick daily work logging process in the team, as part of SCRUM framework.

**Extensively leveraged technologies, including C++, Visual Studio Code, Linux, VMWare, UML, GitLab, Vagrant, QEMU, Docker**

### **Tevatron Technologies Private Limited (Hexnbit: Industry Partner)**

#### **Intern, Machine Learning**

**Jul'20 – Sep'20**

- Screened and vetted various Machine Learning classifiers on a Car Model Evaluation dataset to find the classifier with the highest accuracy in classifying the particular data set according to the multivariate characteristics.
- Presented the data study to a panel of senior engineers and was recognized by the CXO present, for providing data-backed observations, which included hyper-parameter tuning for improved efficiency.

## EDUCATION

### **MVJ College of Engineering**

*B.E. in Electronics and Communication (2021) – 8.71 C.G.P.A and First Class Distinction*

### **Sindhi PU College**

*XII, State, Science (2017) – Secured Distinction*

## ACHIEVEMENTS

- Awarded the Rise Award in the first 6 months at Mercedes-Benz, for significant contributions and efforts towards the project in an individual capacity.
- Promoted within a year of employment at Harman to Product Software Engineer for displaying managerial ability and initiative.
- Regularly volunteer at Association for the Mentally Challenged (AMC) as part of HARMAN's CSR initiatives, where volunteers' handcrafted products are sold. The proceeds from such sale are donated for the upkeep of the NGO.
- Published a report in, IEEE Publications (ICDI3C 2021 Papers): A Novel Remedy for Image Encryption and Data Hiding. The report deals with security in transfer of data against cryptographic cyber-attacks.