# Gowtham Ramarajan

Engineer @FCA Engineering India Pvt Ltd

## **OBJECTIVE**

To be inspired and Be inspired in the domain which I am entitled to work.

### SUMMARY

HIL Model based development and Automation Engineer – Worked with MATLAB and python integrated dSPACE Tools and System Benches/Simulators for a period of around 3 years in Body and Chassis Electronics.

# **EXPERIENCE**

# Engineer, FCA Engineering India Pvt Ltd.

Chennai (Tamil Nadu), India – 2019, Jan – present

Automation Tools and Infrastructure

#### **Accomplishments**

- Utility Tools development for Hybrid Control Processor V-ECU Team with Python Scripting.
- Exposure to VEOS, Bus Manager and System Desk Applications.

Active Chassis and Safety System Bench setup support and Development for M6 POC

### Accomplishments

- Kollmorgen AKD-Drive Setup and Configuration using the Workbench software.
- Modbus to CAN Configuration with the **SW-Compositor** and **Modbus-Poll** Software for development and Validation.
- ASM Model Data acquisition for Brake Application with Wheel Speed sensor simulated Data.
- Wheel Speed Sensor Simulation using the DS207 (Current Measurement Board) for DSP DS2211 DAC line.
- ASM Model Integration with Vehicle HIL Simulator. Exposure to Model-Desk and Motion-Desk Tools for Road Generation and Visualization.

HIL Model Based Development for Body and Chassis Electronics for M6, MP, M4 and WS.

### Accomplishments

- ECU Power supply configuration with Sensors and Actuators Development based on the Signal list and IO List Information using MATLAB - Simulink integrated dSPACE PHS Bus - ds1006 Processor related boards (ds2211, ds2202, ds0666 and ds4004).
- MATLAB RTICANMM and RTILINMM Block-sets used for Development for Virtual Bus and Rest bus Simulation for CAN 2.0 and LIN 2.1.
- Dynamic Model Development for based on the System Validation Team Requirements.
- Control Desk Panel Development for applicable functionalities with cross functional exposure to trail down discussions with Validation Team.
- Power Relay Test, Stimulus Test and Smoke Test report Generation.
- CAN Rest Bus Simulation Test report Generation with the help of Database Files.
- LIN Bus testing report Generation after Parts and System Bench Commissioning.
- MATLAB and Python scripting for model and task automation.
- Model Maintenance based on the Change request Inputs for each Loop of Testing with the Database and LIN Description Files.
- Exposure dSPACE **SCALEXIO** Platform and **Configuration Desk** Application.

Address: No13a, 1st Street, Ganapathipuram, Pallikarani, Chennai – 600100.

Mobile Number: +91-9597775668 Email Id: rgowthamgauti@gmail.com

Linkedin: <a href="https://www.linkedin.com/in/gowtham-ramarajan-ba2072125/">https://www.linkedin.com/in/gowtham-ramarajan-ba2072125/</a>

Github: <a href="https://github.com/Gowthamram983/CareerProgress/tree/main/Progress">https://github.com/Gowthamram983/CareerProgress/tree/main/Progress</a>

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Engineer @FCA Engineering India Pvt Ltd

# Graduate Engineer Trainee, FCA Engineering India Pvt Ltd.

Chennai (Tamil Nadu), India - 2018, July - 2018, Dec

Wiring Harness – Virtual Validation/Design Sweep.

#### Accomplishments

- Supported Design Sweep/Wiring Harness Validation with the UG-NX/Vismockup/Team Center Tools.
- Validating Corporate Standards and Guidelines for DT, HDCC, RU, WL, WS projects in the following harnesses.
  - Headliner Harness, Console Harness and Lift-gate Harness
- Cross functional discussion with Design Release Engineering Teams for issue creation and verification in EE Portal.
- 3D harness Generation using the UG-NX Tool and Variant based disintegration in harness from 110% percent vehicle Configuration with the help of Sales Codes data and EBOM data Verification provided by other cross functional Teams.

### GET Rotation Plan.

 Design, Virtual Analysis and Software Development for BCM and IPC Teams, Infotainment and Hardware in Loop Systems Team Rotation. (Power Train Not included)

# Intern, FCA Engineering India Pvt Ltd.

Chennai (Tamil Nadu), India - 2018, Feb - 2018, Apr

Instrument Panel Cluster - Component Testing

- Developed Semi-Automatic Test Cases for Chimes and Tell-Tales Testing to verify the standard behavior.
- Validation of Developed Test cases and report generation with Vector CANoe and CANCaseXL integration.

### **EDUCATION**

### PSG Institute of Technology and Applied Research

Coimbatore (Tamil Nadu), India — 2014-2018

Bachelor's in Electrical and Electronics Engineering

# SKILLS

- Protocols worked with: CAN, LIN and Modbus.
- Tools worked with: Pycharm IDE, MATLAB, dSPACE Tools (Control Desk, Model Desk, and Motion Desk), Microsoft Office Tools (Word, Excel, Power Point, and One Note) and Microsoft Visual Studio.
- Delft University Certification on Electric Cars Technology.
- Hewlett Packard Enterprise Certification on Embedded Systems Programming: MPLAB with XC8 Compiler and KEIL micro-vision.
- Programming languages worked with: M-Scripting, Python scripting and C programming.
- Team Player and Self-Motivated (Delivered few Knowledge transfer Sessions for Team Transitions and General Training Sessions)

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