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## **Career Objective:**

To seek a career opportunity in an esteemed organization where I can utilize my knowledge towards the growth of the organization.

- Currently working as Lead Engineer in Hinduja Tech Limited, Pune with overall experience of 7.5+ years.
- Worked on Model Based Development in MATLAB (Simulink, State-flow and Auto-Code generation) environment.
- Experience in developing of test harness model for MIL Testing environment.
- Exposure to Verification of Requirements and Code.
- Understanding and analyzing the client requirement and accordingly designing or updating the models and testing in MATLAB/Simulink environment.
- Worked on various phases of Software Development Lifecycle (SDLC).

## **Overall Experience:**

Duration	Organization	Role	Domain
7 months (Jan 2023 till present)	Hinduja Tech Limited, Pune.	Lead Enginee	MATLAB, Simulink, er Simulink Test Manager, Hex file generation.

Duration	Organization	Role	Domain
1 year 7			MATLAB, Simulink,
months (Jun	Magna Electronics,	Senior Engine	er- Embedded Coder,
2021 till Jan	Pune.	ADAS Functio	ns ARXML update and
2023)			Integration.

Duration	Organization	Role	Domain
5 Years 4 months (Feb 2016 till June 2021)	KPIT Technologies Ltd, Pune.	Senior Softwai Engineer	MATLAB, Simulink, Targetlink, Auto-code generation

# **Projects:**

Organization	Hinduja Tech Limited, Pune.	
Project	Low Voltage Power Distribution System (LVPDS)	
Client	DANA Incorporation, USA	
Duration	4 months (Jan 2023 till Apr 2023)	
Environment	MIL Unit Testing using Simulink Test Manager	
Project Description	<ul> <li>The project objective was to perform Model Based Development and MIL Validation for Low Voltage Power Distribution System (LVPDS) for DANA client.</li> <li>Analysis of system requirements from Primary Micro Software Safety Requirements Specification document and mapping it with model implementation.</li> <li>Development of simulatable test harness model for LVPDU library components using Simulink Test Manager.</li> <li>Creation of input test sequence as per system requirements.</li> <li>Set proper values of test vectors to achieve maximum test coverage.</li> <li>Verifying the actual and expected output using test assessment environment.</li> <li>Generation of test assessment report with passed and failed test scenarios and perform thorough analysis of test report.</li> <li>Highlight the identified anomalies observed in MIL validation and propose the possible solution to fix the identified anomalies.</li> </ul>	

Organization	Hinduja Tech Limited, Pune.
Project	On-Board Charger
Client	POC Project
Duration	4 months (May 2023 till Present)
Environment	Code generation using Embedded Coder / Static Code Analysis
Project Description	<ul> <li>Developing the wrapper model for the already developed MATLAB core model.</li> <li>Generating the code using embedded coder for wrapper model.</li> <li>Perform static code analysis using PolySpace tool to generate bug-finder and code proven report.</li> <li>Performing code compilation using STM32CubeIDE and proceeding for hex file generation.</li> <li>Once hex file is generated, we flash it on microcontroller using STM32 LINK Utility software. 6) Observe the LED glowing on microcontroller board as per high pin configured</li> </ul>

Organization	Magna Electronics, Pune.	
Project	Automated Park-Assist Module Development (PAM ECU).	
Client	Stellantis, USA.	
Duration	1 year 7 months (Jun 2021 till Jan 2023)	
Environment	Model Based Development.	
Project Description	<ul> <li>Perform Requirement analysis of Vehicle Function (VF) Document provided by Client.</li> <li>Development of System Requirement Document (SRD) on PTC integrity tool based on Requirement Analysis done.</li> <li>Once all requirements of SRD are approved in peer review, start the development of Software Requirement Specification (SRS) document on PTC and perform peer review of SRS.</li> <li>After SRS review, perform model-based Development of Front Park assist (FPA) and Rear Park Assist (FPA) requirements using Simulink and statemachine.</li> <li>Performing MIL testing for developed Auto-Park statemachine by creating unit test harness using signal builder approach with 93% MCDC Coverage.</li> <li>Putting the test cases on PTC by creating proper Test Suite, Test Objective and Test Session of Testing.</li> <li>Once the model is tested, perform AUTOSAR based code generation of MATLAB model. Generate ARXML, A2L file and source files and perform code compilation using gcc compiler.</li> <li>Send the compiled code to Integration team and perform release. Once Code is integrated, code will be tested by system testing and qualification test team.</li> <li>Once testing is done, defects will be raised on PTC. Analyse those defects find the root cause and fix the defect and again perform release.</li> </ul>	

Organization	KPIT Technologies Ltd, Pune
Project	Powertrain Software Development
Client	Fiat Chrysler Automobiles (F.C.A), Detroit, USA
Duration	5 Years 4 months (Feb 2016 till June 2021)
Environment	MATLAB, Embedded C Programming and Target link Auto-code
	generation.
Project	This project is an extension of Powertrain Software Development
Description	and below are the different phases executed:
	<ul> <li>Requirement Review – In this phase the requirements which are updated in MATLAB Simulink Models are</li> </ul>

- reviewed and verified from the Requirement Change Notice (RCN), raised for a feature in that phase.
- Design Update and Review Updating SIMULINK model requirements to DSpace Targetlink environment and generating the auto-code in Targetlink or review the design if Chrysler engineer has updated or auto coded the requirements.
- Code Review Review the code if Chrysler engineer has coded the requirements.
- Unit Test Case Preparation Preparing the unit test cases and functional test cases in accordance with the code and the requirements.
- Unit Test Case Review Reviewing the test plan if developed by Chrysler engineer.

## **Education Summary:**

Qualification and Year of Passing	College and University
Bachelor of Engineering in	G. H. Raisoni College of Engineering,
Electronics and Telecommunication (2011-2015)	Nagpur, Maharashtra, India.
Master's in business administration in Strategic Engineering Management (2018 - 2020)	Coventry University, Coventry, United Kingdom.

## **Key Skills:**

Skill	Tools/Technologies
Model Based Development	MATLAB 2016b/2019b (Simulink and State-flow)
Code Generation and C Language	Embedded Coder, AUTOSAR Component Code generation
Software Build and IDE Tools	GCC Compiler by NXP, STM32CubeIDE
Version Control Tools	PTC Integrity, GITHUB, Tortoise SVN, PVCS Serena, Feature Based Data Dictionary (FBDD), Accurev, IBM Lotus Notes,
Testing Tools	Simulink Test Manager, BTC EmbeddedPlatform 2.4.1, FTC Tool (Ford Specific), CCM_Utility_tool (Ford Specific)
Static Code Analysis Tool	Polyspace

## **Personal Details:**

Name Gaurav Vijay Pande

Date of Birth 15<sup>th</sup> January 1994

Hometown Nagpur, Maharashtra

Marital Status Married

Spouse's Name Disha Gaurav Pande

Father's Name Vijay M. Pande

Mother's Name Vrushali V. Pande

Passport No. M2410705

I, the undersigned, hereby declare that the above given information is furnished, and it is true to the best of my knowledge.

**Date:** 25/07/2023

Place: Pune (Gaurav Vijay Pande)