Rahul Kambhampati

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PROFESSIONAL SUMMARY

To leverage my 7.8 years of expertise in automotive model-based development, testing and virtualization to drive innovation, efficiency and excellence in this field. I aspire to contribute to cutting edge advancements in the automotive industry and be a leader in shaping the future of vehicle technology.

SKILLS

- Project Leadership
- Code based Testing.
- Agile Methodology
- Virtual ECU Generation and testing
- CI/CV and Virtual Validation
- Vector Silkit
- Systems Development Lifecycle Management
- Virtual SIL Testing
- Cosimulation
- Matlab/Simulink
- Mscript Programmer
- Model Developer

WORK HISTORY

TECHNICAL LEAD

02/2024 TO PRESENT

AKKODIS INDIA| Bengaluru|Onsite
Client 2 : German Company

. Selected for Provetech Project(Germany), currently I am software integrator who works on Dspace, COM interfaces and APIs and Proof of concepts

Client 1: French-Italian-American multinational OEM Company
Tools used: IBM Rational Doors, Microsoft visual studio, Systemdesk, VEOS, Controldesk,AutomationDesk , Bus Manager, VITE Platform, CI/CV, Python

- Integrated Software components of BCM and IPC using Systemdesk Gui exe and debugged issues arised from integrating CAN and LIN networks
- Involved in project of CI/CV of Virtual Validation and setting up the environment for Virtual Validation via CI/CV Pipeline execution using VITE Platform
- Done Regression Testing for software components of BCM and IPC using CI/CV Platform
- Manually analyzed failed Test cases and raised issues
- Involved in Integration Software Testing
- Modified Existing Python scripts and automate tasks using APIs of Systemdesk, VEOS and Controldesk
- Maintained Documentation
- Coordinated with Model Owners, Req-doc Owners to discuss the issues

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Results Achieved: Received Rockstar Rookie Award for H1 2024

TECHNICAL LEAD *08/2023 TO 02/2024*

KPIT Technologies

Tools used: Microsoft Visual Studio, Systemdesk, VEOS Player,Controldesk, Bus Manager and Matlab

- Worked on Integrating ECU Validator Tool (KPIT inbuilt tool) in headless mode with Veos player headless in Windows Docker
- Worked on Zonal Architecture E/E or SDV Validation for creating Autosar based Level 3 Virtual ECU and validating for Zonal Front and Zonal Rear which is Autosar compliant ECU.
- Created Rest bus application from DBC File
- Imported SIC files in bus manager and connect ports to bus configuration ports
- Developed matlab models and generated SIC Files
- Made used of ethernet monitor and CAN Monitor of control desk to observe CAN and ethernet frames in control Desk.
- Debugged Autosar software Code to find defects by integrating Veos and Microsoft visual studio.
- Importing MCAL arxmls and generating code files and configuring modules in systemdesk
- Integration of Plant Model, bus application along with multiple Virtual ECU and validated the software in Virtual SIL Setup
- Worked in a project where Cosimulation is involved between AWS Graviton and VEOS client.
- Connecting ports between multiple Virtual ECU, bus files and creating CAN , ETH Clusters in VEOS Player
- Experience in integrating ASW and BSW Components in SIL Platform

Results achieved: Gained opportunities to work on Proof of concepts and working for conferences. These projects are complex and exploratory in nature.

TECHNICAL LEAD *06/2022 to* 08/2023

KPIT Technologies | Bengaluru

Client: American Tier1 OEM Supplier

Tools used : Eclipse, Control Desk, VEOS player, SystemDesk

- Have experience creating non autosar virtual ECU using code based approach
- Written Embedded C code for DAP Port creation within BSW Module

- Configured OS, DAP, SAB Modules in Systemdesk
- Written Embedded C code for PWM output, LIN, PWM input , Discrete Input, Discrete Output, SENT switches and configured DAP Ports from Farm and Aggregator Multi ECU communication on control desk
- Have experience in integrating Eclipse, Microsoft Visual Studio with Veos player and debugging autosar code
- Worked on creating DAP Ports for NVM Variables

Results Achieved:
Able to deliver defect free Software because of thorough white box testing of code using Virtual SIL Setup

SENIOR SOFTWARE ENGINEER
04/2019 to 06/2022

KPIT Technologies | Bengaluru

Client: South Korean Tier 1 Global Supplier in America

- Have experience working with Jenkins CI/CD Pipeline, Can understand batch scripts and pipeline syntax, Written M script codes for MIL-SIL Testing Automation scripts for Model Coverage for braking and steering Simulink subsystems,

- Performed Unit testing using client customized toolbox, have experience in Simulink Design Verifier Automated testing for modes like design detection And test case generation, Have experience in generating reports for Model Advisor Checks programmatically
- Led software development initiative as subject matter expert and primary point-of-contact for project management staff.
- Trained and mentored junior developers and engineers, teaching skills in Model based testing and working to improve overall team performance.
- Checked client code for bugs and weaknesses using approved troubleshooting methods.
- Worked with project managers, developers, quality assurance and customers to resolve technical issues.
- Practiced and encouraged respectful and transparent communication in interactions.

Results achieved: Successfully closed the project and got positive customer feedback.
Recipient of krown award for the work done

Client: Japan -France Tier1 OEM Company(Chennai)

- Done Unit Testing and Validation for the client based customized model advisor scripts.
- Have experience in constructing test models for the purpose of testing ‘model advisor’ scripts.
- Written Requirement Function Logic for model advisor scripts and for development activity
- Drawn Logic Structure (Flow charts) for client based customized model advisor scripts.

- Written Client based Style Check Guidelines to New Format
- Developed tools (matlab script code) for various requirements within the team.
- Have experience in leading a small team to meet strict deadlines.
- Have experience in writing mscript code for Simulink API and Stateflow API for clients.
- Used Tools like Matlab Profiler Tool to check code coverage.
- Developed codes related to Model Integration Team.

Results achieved : Lead a small team and significantly raised the customer satisfaction and lowered the defects by providing high quality products

SENIOR MATLAB ENGINEER
07/2016 to 03/2017

Datapoint Info Solutions

- Developed Projects related to Electrical Engineering field using Software Matlab/Simulink, Designed Control algorithms for embedded systems, Have Experience in working with Microcontrollers

BUSINESS PARTNER
07/2015 to 07/2016

IACHIEVEGROUP

- Had a online business and earned passive income

SOFTWARE ENGINEER
12/2014 to 06/2015

KPIT Technologies | Pune

- Develop analyze and implement algorithms using Matlab/Simulink, Analyze, implement, PRCR's work packet and follow review workflow for zero defect work packet, Updating application guides ,tuning guides and write test cases to meet prcr'srequirement,HIL test bench and used tools used as Calterm, IBM clearquest, Clearcase,Buildforge
- Worked with software development and testing team members to design and develop robust solutions to meet client requirements for functionality, scalability, and performance.
- Coordinated with other engineers to evaluate and improve software and hardware interfaces.
- Analyzed proposed technical solutions based on customer requirements.
- Delivered unit-tested systems within customer-prescribed timeframes.

SOFTWARE ENGINEER
08/2014 to 12/2014

GrowelSoftech Pvt Limited

- Worked as subcontract for client KPIT technologies in the field of model based design, Updated Simulink models as per standard modeling guidelines, report generation, writing m scripts,autocode generation using Target link, MIL-SIL testing using Matlab, coverage testing using reactis for designed Simulink models

RESEARCH ASSOCIATE
08/2009 to 05/2011

Center for Energy System Research, Tennessee Technological University

- Designed DFIG based wind turbine power generation models and its related control algorithms, involved in designing Microgrid models that includes Distributed Generation and Microgrid control Algorithms, Done Literature Survey on Smart Grids

EDUCATION

M.S. in Electrical Engineering (Thesis) *04/2011*
TENNESSEE TECHNOLOGICAL UNIVERSITY, Cookeville, TN 38505, USA

- Thesis Title: Enhancement of Microgrid frequency stability using Microgrid Frequency controller (MGFC)
- GPA: 3.24/4

B.Tech. in Electrical Engineering *08/2008*
GRIET, JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY
Percentage: 64.5% First Class Division

FREELANCING AND PROFESSIONAL DEVELOPMENT

2017, 2019

ENGINEERING SKILLS

Simulink, Matlab, LabVIEW, Target link, Real time workshop, PSS/E, PSAT, GridlabD, PSCAD, ETAP, InterPSS 1.4, SCADA, PLC, VB script, Excel, Dspace Control Desk, Dspace SystemDesk, Dspace VEOS Player,Dspace AutomationDesk, Virtual Integration Testing Environment(VITE) Electronic Control Units present in Automotives., OS/Programming C, Productivity MS Office, Google Docs, Data Analysis Excel, Manufacturing