



BHASKARA ANNAYAPPA

EMBEDDED SOLUTION ARCHITECT

Experienced, Initiative-taking Embedded Solution Architect with Results-driven having 15 years of industry experience and a proven record of designing and implementing innovative solutions. Skilled in software development, verification, and system optimization to meet client needs and exceed expectations.

EXPERIENCE

AUG 2022 - PRESENT **SOLUTION ARCHITECT**

KPIT TECHNOLOGIES. Bangalore, India

- Subject matter expert (SME) and Practitioner on MBSE with deep hands-on experience on MBSE toolchain including SysML modeling tools such as MagicDraw, Rhapsody, Confluence.
- Hands on experience on requirement management, including usage of tools for requirements management such as DOORS and JIRA.
- Collaborate with cross-functional teams to capture, analyze and validate system requirements spanning various engineering domains.
- Led design and implementation of scalable solutions for complex business processes.
- Conducted model reviews to ensure compliance with design standards and customer specifications.
- Support software product development and lifecycles, including agile methodologies.

NOV 2019 - AUG 2022 **STAFF ENGINEER OR PRINCIPAL ENGINEER**

Harman international. Bangalore, India

- Design and verification V2X Safety Applications like ICW, BSP, EVV, RLVW using Prescan.
- Demonstrated Savari V2X Safety Applications to Tier-I OEM with multiple OBU/RSU for next generation of applications based on cellular V2X (C-V2X) or dedicated short-range communication (DSRC) will allow vehicles to 'see through the eyes' of their traffic fellows and significantly extend the sensing range provided by their own sensors, such as cameras, radar, or lidar.
- Proposed several engineering value additions to reduce cost and improve test efficiency.
- Product management of automotive products.

OCT 2017 - NOV 2019 **TEAM LEADER EMBEDDED**

Altran Technologies India. Coimbatore and Bangalore, India

- Verification of the functional behavior of perimeters in EMS like Super charger, Combustion and Cooling systems.
- Defining and validating the test cases based on requirements as validation plan (MIL).
- MXAM model check, Prepare and update Model Test report
- Estimation, Planning, Customer co-ordination, Team building and Management

AUG 2010 - AUG 2017 **TECHNICAL LEAD**

KPIT, Tech Mahindra. Bangalore, India

- Design, Development and Verification of Powertrain systems, Active and Passive Safety Systems using Matlab and Simulink.
- Auto Code Generation of the model using Targetlink, RTW.
- MIL & SIL Testing .

SEP 2009 - AUG 2010 **PROJECT ENGINEER**

National Aerospace Laboratory. Bangalore, India

- Active Vibration Control of Aerospace Structures.
- LMS filter implementation for active vibration control of plane wing using system generator. LMS Adaptive Filter and System Identification design using Xtreme DSP48 slice in parallel operation and thus improvement in speed of operation has been achieved. The LMS adaptive Filter and System Identification model has been evaluated and confirmed both in simulation and in Hardware Co-Simulation by downloading the bitstream on Virtex-4 FPGA chip residing on the Nallatech Xtreme DSP Kit.
- Certification by NAL.



ACHIEVEMENTS

- Led the software development for a new product launch that generated \$1M in revenue within the first month.
- Industry Standard real time safety application scenario creation for V2V communication using Prescan is developed and evaluated. This achievement is published at Harman international.
- Received recognition from Nation aerospace laboratory for the achievement in nullifying the effect of active vibration in plane wing using LMS filter implementation in Simulink. The technical paper was published under the scientist involvement.
- As a team leader consistently surpassed project targets for 6 consecutive months. This helped boost overall team size by 20%.



DESIGN SKILLS

- Automotive vehicle function design, architecture, and solution requirements design of features from powertrain, Active/Passive safety application.
- Design/Testing and V2X system.
- Test design, test automation.
- Establishing and own the vision and strategic priorities for products within Automotive domain.



Ability

- Mbd, v&v, Mbse, Sysml, Rhapsody
- MagicDraw, DOORS, Jira, Reactis
- Prescan, Embedded system design
- FMEA and Verification
- Hardware/software integration
- Team collaboration

MANAGEMENT

- Technical management, Project management, Test/Quality assurance, Pre/Post-Sales support.
- Continuously researches industry developments, new market trends.
- Establishing and owning the vision and strategic priorities for products
- Flexibility and scalability as core attributes of the platform.
- Strong relationship building skills, including the ability to relate constructively to all levels of an organization.
- Have experience working with automotive networks (i.e., CAN, LIN, Ethernet) and protocols (e.g., UDS, SOME/IP, etc.)
- Designed and developed hardware/software for embedded systems and functional safety concepts.
- Teamwork spirit with strong listening, technical writing, and oral communication skills.
- Outstanding skills in presenting to both technical and executive audiences.
- Collaborates with the team to detail features with acceptance criteria along with the business value.

CORE COMPETENCY

- Model based design, Autocode generation and validation (MIL, SIL, HIL)
- Solution and System Modelling using MagicDraw/Rhapsody/Matlab/Simulink.
- Functional safety standards such as ISO 26262 Experience in writing software requirements.
- Validation & Verification activities based on requirement analysis.

Onsite Experience

- Collaborated with numerous clients, including Continental, Altran, and Renault, on various embedded projects, serving as both a technical expert and onsite coordinator in countries such as Germany, France, and Romania.

CERTIFICATIONS & COURSES

- ISTQB, ISO26262, Mathwork certified, Software Automation and Manual testing, MBSE, SYSML, Doors, Jira, Power train systems.

EDUCATION

- 2005 - 2009 BACHELOR OF ENGINEERING, ELECTRICAL & ELECTRONICS ENGINEER
 - BNM institute of technology. Bangalore, India
-