

Raghavendra Ramanath



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Highlights

Raghavendra Ramanath is a Lead Architect with Continental Automotive Mobility.

Seasoned Technical leader in Software product development/System engineering around Automotive ADAS components, Embedded and Avionics Systems.

Career Progression

Lead Architect at **Continental Autonomous Mobility** in Bengaluru, India

04/1/2018 – Till date

Senior Consultant at **Capgemini India Pvt Ltd** in Bengaluru, India

10/11/2014 – 26/12/2017

System Analyst at **AtoS India Pvt Ltd** in Bengaluru, India

19/11/2009 - 31/10/2014

Software engineer at **e-Con system India Pvt Ltd** in Chennai, India

16/07/2007 – 11/11/2009

Skills Overview

System Engineering, System Architecture, C/C++ (CPP), Python programming, Algorithm Development, Software Development, ADAS, Sensor Fusion, Kalman Filters, Product Owner, Scrum Master, Linux, Automotive Systems, Embedded Systems, Requirement Engineering, AUTOSAR, CDD, Function Safety, ISO26262, CyberSecurity, Sensors Technologies, Radars(ARS/LRR, SRR), Camera(MFC), Doors, PowerBI, Rhapsody, Confluence, Jira, GTests, GIT, CMAKE, Jenkins, CI/CD, PlantUml, IMS, ASPICE, Qt, Qwt, QTest, C++11, Boost library, STL, RTRT, SVN, SQL, Clearcase, Avionics, DO178B, Integration Test, System Test, VxWorks, Wireless, TCP-IP, Device driver, BSP Development

Education Overview

Master's degree (MS, 2007) in Advance Embedded system design, ISquareIT, Pune, India

- 6 months Internship in ESIGELEC, Rouen, France

Bachelor of Engineering (BE, 2004) in Electronics & Communication from Visvesvaraya Technological University, Belgaum, India.

Workexperience/ Projects

Continental Automotive

Period: Jan 2023 – till date

Line of Business: System Engineer for Iveco-MY24/26 project components (SRR, ARS, MFC)– Automotive Domain

Environment/Tools: C/C++, Python, ADAS using Sensor Tech(SRR523, ARS514, MFC527), Linux, Jira, PowerBI, Rhapsody, DOORS, GIT, CI/CD, ISO26262

Project targets the development of chain of effects of multiple vehicle functions for Front fusion system and rear safety functions

- Leading the planning and executing of all system engineering activities according to customer/internal milestones, scope and quality for both Front fusion and Rear safety functions.
- Technical interface to the customer for systems engineering related topics.
- System Engineer for Functions such as Blind spot detection, Lane change assist, Door open warning, RearCrossTrafficAlert/Brake, Driver Drowsiness Alert Warning.
- System Architecture (Functional, Logical and Physical diagram) updates in Rhapsody.
- Responsible for change request analysis, system-level requirement analysis, system functional architecture design and root cause analysis.
- Sensor fusion development, algorithm optimization and performance tuning for driving functions.

Continental Automotive

Period: Jul 2021 – Jan 2023

Line of Business: Team Lead for CEM for ARS540 project (BMW) – Automotive Domain**Environment/Tools:** C++, Gtests, ISO262, ASIL, Git, DOORS, Cmake, Jenkins, CI/CD

CEM provides autonomous driving with 360 view of comprehensive environment using multi-sensor (Camera, RADAR and USS) fusion.

- Scrum Master & Team lead for Multi sensor fusion application projects for Major European OEM.
- L2 + applications such as Adaptive Cruise control, Autonomous Emergency Brake, Evasion Steer Assist
- Responsible for delivery of SEF, EMF and VAL functional CEM components.
- C++ based multi sensor fusion development.
- Fusion algo optimization and parameter tuning for performance
- Technical mentoring and competency development of the team

Continental Automotive

Period: Jul 2020 – Jun 2021

Line of Business: Product Owner for Health Management component for HCP2 Project (Cariad) – Automotive Domain**Environment/Tools:** C++, Autosar, Gtests, ISO262, ASIL, Git, DOORS, CMake, Jenkins, CI/CD, Artifactory

HCP2 is a ADCU project. Technically leading the HealthManagement/ErrorHandling components for the project

- Worked as PO/FO for HealthManagement and ErrorHandling of Platform software.
- Responsible for the requirements and scope of delivery

Continental Automotive

Period: Jan 2018 – Jun 2020

Line of Business: Algorithm Development for CEM Components for HA22 Project (Honda) – Automotive Domain**Environment/Tools:** C++, Python, Gtests, ISO262, ASIL, Git, IMS, DOORS, CMake, PlantUML

CEM was piloted in HONDA project for automated driving scenario. It's L2 plus system.

- Component ownership of CEM Component - Validity
- Design and implementation Degradation Field of view and Ideal Field of view
- Design and implementation for EMF modules - Code generation framework for ErrorHandling for CEM components

CapGemini India

Period: Nov 2014 – Dec 2017

Line of Business: Software Development for GUI Framework for ASML – Application Domain**Environment/Tools:** Qt-4.8.6, C++11, Boost Library, Linux (Suze/Centos), Python, Qwt, QTest (Unit Test framework), SQL

The Graphical User Interface Framework is responsible for providing ADT (Advance diagnostic test) GUI interface to the ADT Logic. It provides a GUI editor and GUI Viewer.

GUI Editor-enables ADT developers to quickly define the GUI of their ADT using Drag and Drop development tool. GUI viewer- loads the UI definition that was created with editor and shows the GUI. It provides the DDF interface.

During this tenure in Capgemini, had worked for ASML, Netherlands (Offshore) and held the following responsibilities

- Requirement gathering from the client.
- Design and Developed UI using Qt and C++.
- Writing and implementing Unit Test and User tests.
- Involved in the peer review meeting, tracking defects, and fixing them.

Results: New features implemented and delivered. Successfully completed and delivered number of sprints. Several client appreciations.

AtoS India

Period: July 2013 - October 2014

Line of Business: Software Development and Verification & Validation for PCFT Tool in Airbus–Avionics Domain**Environment/Tools:** DO-178B, Development with C and C++, Integration testing with RTRT, SVN

PCF-GENERATOR tool is developed in compliance with DO-178B. This tool is qualified as a development tool Level A in the context of the PCF generation process.

During this tenure in AtoS France(onshore) had worked for Eurocopter project and held the following responsibilities

- Requirement Gathering and analysis and breaking them as TOR (Tools Operational Requirement).
- Translating the TOR to high level requirements - TR (Tool Requirement document) and Translating TR into low level requirements - TDD (Tool design document).
- Code as per TDD with the traceability of each requirement from TDD.
- Develop Test cases from TVCP (Tool verification and cases and procedure document).
- Writing Test procedures for the developed test cases and executing the test scripts on IBM Rational tool, RTRT to generate test reports.
- Review of Test artefacts and update Problem Reports.

Result: Successfully involved in Design, development, and Functional test of this product from the start till it went for production. Client appreciations.

AtoS India

Period: Nov 2009 - July 2013

Line of Business: Software Development and Verification & validation for CMSA350 in Airbus–Aircraft Domain

Environment/Tools: DO-178B, Development with C and C++, Integration and System testing with RTRT, SVN, Clearcase

This is an Avionics project for Airbus A350. The CMS module is the centralized monitoring system in the cockpit. It acts as the interface between the User (Pilots/Maintenance person) and the various sensors and data acquisition systems which exist in the aircraft.

During this tenure in AtoS India (offshore) had worked for Airbus project and held the following responsibilities

- Understanding data and control flow for and from the User interface to the application.
- Design the complete subset taking dynamic aspects into account on a UML based tool HOOD/STOOD.
- Code as per design with the traceability of each requirement from SRD.
- Responsible for writing and executing test scripts on IBM Rational tool, RTRT to generate test reports.
- Involved in the peer review meeting, tracking defects and fixing them.
- Configure and Running the Scripts to generate coverage report
- Fixing up DM (Demand modification)/Change Request.

Result: Successfully involved in Design, development and Test for various subsets of this product Received First Time Right, an Atos Flagship award for design of modules. Several client appreciations

e-Con Systems India

Period: Jul 2007- Nov 2009

Line of Business: Software Development – Embedded Domain

Environment/Tools: Development with C and C++, Unit Tests, SVN, Linux, Device Driver, ARM core, Atheros boards,

During this tenure in e-Con Systems India Pvt Ltd, had worked for various project and held the following responsibilities

- Porting BSP from Atheros AR5312 based board to AR2313 based board.
- Implementing GUI from the custom BSP.
- Porting Qtopia and implement Camera driver on the reference platform based on PXA-270.

Result: Successfully involved in development and completion of multiple embedded projects. Several client appreciations.