Kavya Menon

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Objective

Resourceful and innovative Automotive Embedded Engineer with 6 years of comprehensive experience in system design, development, and integration within the automotive industry. Specializing in advanced driver-assistance systems (ADAS) with a proven track record of leading projects that enhance vehicle safety and performance. Adept at cross-functional collaboration and passionate about leveraging emerging technologies to solve complex automotive challenges.

Professional Experience

Lead Embedded Engineer – ADAS

DynoDrive Technologies Pvt. Ltd., Pune, Maharashtra

March 2019 – Present

- Directed a team of 10 engineers in the development and implementation of ADAS features such as adaptive cruise control and lane-keeping assistance, leading to a 30% improvement in system reliability and a 20% reduction in time to market.

- Championed the integration of sensor fusion algorithms using Radar, LiDAR, and camera systems to enhance detection accuracy and vehicle response times.

- Oversaw the deployment of AUTOSAR-compliant software components, ensuring modularity and scalability of vehicle systems.

- Facilitated the adoption of Model-Based Design (MBD) practices using MATLAB/Simulink, streamlining the development process and improving system verification and validation efficiency.

Embedded Software Engineer

AutoInnovate Solutions, Hyderabad, Telangana

August 2017 – February 2019

- Developed real-time embedded software for vehicle powertrain systems, contributing to a 15% increase in fuel efficiency and a 10% reduction in emissions for next-generation vehicles.

- Implemented robust CAN communication protocols to ensure seamless data exchange between ECUs, enhancing system interoperability and performance.

- Conducted comprehensive system testing and debugging, employing tools such as VectorCAST and Lauterbach Trace32, which resulted in a significant decrease in system faults and software iterations.

- Collaborated with hardware teams to design and optimize PCB layouts for control units, ensuring optimal performance and reliability under varying automotive conditions.

Skills

- Tools: Proficient in MATLAB/Simulink, VectorCAST, CANalyzer, Lauterbach Trace32

- Programming Languages: Advanced knowledge in Embedded C, C++, Python, and Assembly

- Technologies: Expertise in ADAS, Sensor Fusion, CAN, LIN, FlexRay, AUTOSAR

- Systems: In-depth understanding of Powertrain Control, Body Control Modules, and Infotainment Systems

- Additional Skills: Skilled in Model-Based Design (MBD), PCB Design, System Testing and Validation, Agile and Waterfall Methodologies

Education

Master of Science in Automotive Engineering

College of Engineering, Pune

July 2015 – June 2017

- Specialized in Advanced Driver-Assistance Systems (ADAS).

- Thesis: "Sensor Fusion Techniques for Improved Object Detection in ADAS."

Bachelor of Technology in Electrical Engineering

National Institute of Technology (NIT), Surathkal

August 2011 – May 2015

- Graduated with Distinction.

- Capstone Project: "Design of an Electric Vehicle Battery Management System."

Certifications

- Functional Safety Certified Automotive Engineer (FSCAE) – 2020

- Professional Engineer (PE) in Electrical Engineering – 2018

Professional Affiliations

- Member, Automotive Engineering Society (AES) since 2020

- Member, Institute of Electrical and Electronics Engineers (IEEE) since 2016