

PERSONAL INFORMATION



Athul Pantheerady Kalam

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Sex Male | Date of birth 04/04/1992 | Nationality Indian

PERSONAL STATEMENT

Skilled Automotive Professional with over 11 years of expertise in Linux, embedded systems, and advanced automotive technologies. Specialized in Automotive Infotainment and ADAS, with proficiency in embedded software development, device drivers, and automotive protocols such as Ethernet, AVB, and SOMEIP. Demonstrates a robust foundation in Linux, object-oriented design, and performance optimization techniques, enabling the delivery of cutting-edge solutions. Experienced in QNX hypervisor, system profiling, and SoC-level optimizations. Adept at working in Agile and Scrum environments, managing complex cross-functional projects globally. Excels in customer-facing roles with outstanding communication skills, and committed to continuous learning and innovation in embedded systems and AI-driven technologies.

JOB-RELATED SKILLS

Programming Skills C ,C ++ ,Python,CUDA ,Shell scripting ,Bash,Linux

Development Skills Embedded system ,Automotive Ethernet, DoIP, PTP, GPTP,SOME/IP, Audio Video Bridgning, Autonomous Driving ,Infotainment, Linux device drivers ,BSP,Linux Kernel , ARM,PIC,X86, Hypervisor ,Yocto, QNX ,QNX and Linux Performance analysis tools , Trace logger , Trace compass , Kernel trace , AI and 3D Graphics Workloads , Performance Optimization

Embedded Communication Protocols UART, SPI, I2C ,I2S,CAN,USB Ethernet

Version Control and CI Git, SVN , Gerrit, Jenkin

Working Methodology Agile,Scrum

WORK EXPERIENCE

April 2021- Present

Qualcomm (Staff Engineer)

- Working as Senior Audio Customer Engineer for Infotainment products (Bridge between Qualcomm Engineers and leading Automotive OEMs)
- Designed and optimized embedded software applications for Linux and QNX platforms, ensuring high performance and energy efficiency for automotive systems.
- Led system profiling and debugging tasks for SoC-based ADAS and infotainment solutions, identifying and resolving bottlenecks in CPU/GPU/NSP/DSP performance.
- Collaborated with cross-functional teams to integrate AI workloads and Infotainment etc into automotive workflows, ensuring real-time responsiveness.
- Managed customer-facing projects, delivering tailored solutions and providing technical guidance to external partners.
- Conducted technical presentations at industry conferences, showcasing innovations in system optimization and automotive computing.
- Defining audio architecture
- Giving Training in Qualcomm SOC and Audio Architecture to the customer
- Understanding Customer requirements and communicating to QC Engineers
- Helping Customers in triaging Audio/Video/AI issues (Linux +QNX)
- Skills : ARM,QNX ,LINUX ,Performance tuning ,Yocto Linux ,ADSP ,ALSA,Audio ,Kernel drivers .I2S ,TDM ,PCM driver configurations ,GPU ,NPU ,DSP

July 2019–March 2021 **APTIV GMBH (Senior Software Engineer)**

- Responsible for the Yocto Platform software for Autonomous driving
- Responsible for the Provisioning of Linux Infrastructure on the embedded hardware for the autonomous applications .
- Played pivotal role in customer interaction and requirement analysis of the project
- Implementation and maintenance of CAN Ethernet Gateway.
- **Skills** : Yocto Linux ,CAN Ethernet Gateway ,Kernel driver ,ARM

March 2019–July 2020 **Volkswagen Infotainment GmbH (Senior Software Engineer)**

- Support and maintenance for DoIP module
- Responsible for Yocto Linux
- **Skills** : Linux , C, Shell, CAN,SPI

April 2017–March 2019 **BOSCH (Senior Software Engineer)**

- Designed and Developed ASF Middleware and AVB (Audio Video Bridging) based communication for ICAM in Linux. ICAM captures different views of vehicles (including surround view) using more than 4 camera data sent over the AVB network
- Responsible for the bring-up of AVB based Lear amplifier with AVB network for data transfer and SOMEIP for control information using open AVNU-AVB solution. The project was mainly intended for porting open AVNU AVB solutions to support streaming of IEEE 1722 AVTP packets using LEAR Amplifier and intel NGI2 board connected via BroadR-Reach twisted pair cable
- Familiar with QNX hypervisor and Yocto build system . Brought up Qualcomm 820 ADP board with QNX Hypervisor and Android Guest domain.
- **Skills** : Linux , C, Shell, CAN,Yocto ,Hypervisor ,QNX, Android ,Linux drivers ,ARM

March 2015–April 2017 **WISILICA (Embedded Software Engineer)**

- Worked on Bluetooth Low Energy-based Mesh solution.
- Developed the algorithm for Leader node election in BLE networks
- Developed software WiFi-BLE Bridge device on the Linux platform for communication with IoT Domain Systems.
- Expertise in Microcontrollers and UART, SPI, I2C
- Awarded Best Embedded Engineer for the year 2017 for the contribution towards the project development
- **Skills** : Linux , C, Shell, Bluetooth Low Energy ,OpenWRT ,WiFi ,ARM assembly

Apr 2013–March 2015 **Embedded Software Engineer (Quest Innovative Solutions ,Accel Front Line)**

- Responsible for the training and mentoring of PG Diploma students
- Developed projects based on PIC, ARM, AVR microcontrollers
 - Assembly code and C code development for sensors and microcontrollers

PERSONAL SKILLS & ACHIEVEMENTS

Foreign language(s)
ENGLISH

Listening	Reading	Speaking	Writing
Fluent	Fluent	Fluent	Fluent

GERMAN

Beginner	Intermediate	Beginner	Intermediate
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Communication Skills

Excellent language skills: Part of the Project showcases meetings to represent team. Actively involved in customer requirement meetings and review meetings. Skilled at clearly articulating technical concepts to non-technical stakeholders, ensuring alignment and understanding of project goals. Adept at addressing customer concerns with patience and professionalism, delivering effective solutions to enhance satisfaction . Experienced in building strong client relationships by maintaining transparency, listening actively, and fostering trust throughout project lifecycles.

Achievements

- Best Embedded Engineer Award (Wisilica)
- Sprint Super Star Award (Bosch) for the project contribution
- Online Profile : <https://athul7pk.github.io/>
- As an embedded hobbyist maintaining a blog <https://ineclabs.com>

Certifications

- Scrum Foundation Professional Certificate (SFPC)
- Delivering Bad News to a Customer
- Root Cause Analysis Getting to the Root of Business Problems
- Software Architecture Foundations
- Project Management Skills for Leaders
- We Are Developers World Congress Volunteer -2022,2023
- Project Management Essentials Certified (PMEC)
- Mastering Organizational Chaos
- Becoming an AI First Product Leader
- The Three Pillars of Effective Communication