**LONG PHAM**

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| **PROFESSIONAL SUMMARY** | | |
| * **Overall 4+ years of extensive experience** in software development of embedded systems, focused on automotive industry * Solid knowledge and working experience with **AUTOSAR architecture,** especially **MCAL layer** and **ISO26262** automotive standards * Strong hands on working experience in **AUTOSAR MCAL drivers** (**MCU, DIO/PORT, WDG, LIN, CAN, ETH, I2C**) testing and development on various automotive platforms such as **MAC57DXXX, MAC58RXXX, MPC5746R, MPC574XG, MPC574XM, MPC574XP, MPC574XR, MPC5777C, MPC5777M, S32R274, S32V234**, **i.MX6 families, i.MX8 families** * Knowledge of vehicle communication protocols (**UART, CAN, I2C, SPI, LIN, ETH)** * Experience with **RS232, CAN** and **SPI** busses troubleshooting using **PCAN, CANoe, NI LabVIEW, Logic Analyzer** and **Oscilloscope** * Working experience with embedded C compilers such as **GreenHills, Diab, Linaro, IAR,** and **GCC** * Knowledge and experience of **MISRA C 2004/C++ 2008** coding standards * Familiarity with MISRA conformance tools **LDRA Testbed,** **PC-Lint** * Extensive experience working with **8/16/32bit microcontrollers** and **ARM processors** * Strong hardware and software debugging skills using **Trace32 Debugger** * Familiarity with signal measurement devices (**Multi-meter, Oscilloscope)** * Knowledge of Real-time Operating System **(FreeRTOS, AutosarOS)** * Experience with software design tools (**Enterprise Architect, Microsoft Visio)** * Working experience with source control management tools including **IBM ClearCase, GIT, SVN** * Working experience with change management tools including **IBM ClearQuest, Jira** * Working experience with requirement management tool including **IBM DOORs** * Working experience in **Agile/Scrum** projects * Proficiency in programming languages: **C/C++ (5+ years), Python** * Working experience with both **Windows** and **Linux (Ubuntu)** operating systems * **Strong analytical**, **problem solving, troubleshooting** and **debugging** skills | | |
| **TECHNICAL EXPERTISE** | | |
| **Program languages** | | C/C++, Python, Makefile |
| **Automotive standards** | | AUTOSAR 3.0/4.0/4.2/4.3, ISO26262 |
| **AUTOSAR MCAL drivers** | | MCU, DIO/PORT, GPT, WDG, LIN, CAN, ETH, SPI, LIN |
| **Communication protocols** | | CAN, UART, I2C, SPI, SPI |
| **Bus troubleshooting tools** | | PCAN, CANoe, NI LabVIEW, Logic Analyzer |
| **Compilers** | | GHS, Diab, IAR, Linaro, GCC |
| **Coding standards** | | MISRA C 2004/ C++ 2008 |
| **MISRA conformance tools** | | LDRA Testbed, PC-Lint |
| **Microcontrollers** | | PowerPC, x86, ARM Cortex M |
| **Debugger** | | ARM/PPC Trace32 Debugger |
| **Signal measurement devices** | | Multi-meter, Oscilloscope |
| **RTOS** | | FreeRTOS, AutosarOS |
| **Design Tools** | | Enterprise Architect, Microsoft Visio |
| **Methodologies** | | Waterfall, Agile/Scrum |
| **Source Control Tools** | | IBM ClearCase, GIT |
| **Change Management Tools** | | IBM ClearQuest, Jira |
| **Requirement Management Tool** | | IBM DOORs |
| **IDE/Utilities** | | S32 Design Studio, IAR embedded workbench, Sublime Text |
| **AUTOSAR configuration tool** | | EB Tresos |
| **Operating Systems** | | Windows, Linux (Ubuntu) |
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| **PROFESSIONAL EXPERIENCE** | | |
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| 08/2017 – 10/2018 | **SENIOR EMBEDDED SOFTWARE ENGINEER, FPT Software – Hanoi, Vietnam**  **i.MX MCAL DEVELOPMENT PROJECT**   * Worked on a project of implementing, porting and maintaining AUTOSAR MCAL drivers for NXP i.MX8 platforms * Updated/Maintained development environment for MCAL drivers * Provided solutions to team to implement AUTOSAR MCAL drivers: ETH, MCU, WDG, DIO/PORT, ETH, CAN, SPI, LIN * Analyzed AUTOSAR 4.3 requirements and worked with team to implement MCAL drivers * Integrated MCAL drivers and created sample application for i.MX8 AUTOSAR MCAL package to NXP’s customer * Analyzed, designed and worked with team to implement AUTOSAR complex drivers as customer’s requests for i.MX families (RPMsg, I2C) * Worked with NXP’s customers to bring up MCAL sample application with their own i.MX hardware * Supported NXP’s customers integrate MCAL with their systems and products | |
| 04/2016 – 07/2017 | **EMBEDDED SOFTWARE ENGINEER, FPT Software – Hanoi, Vietnam**  **SECURE CAN TRANSCEIVER (S2T) FIRMWARE DEVELOPMENT PROJECT**   * Created demonstration to introduce the concept of utilizing secure CAN transceiver to protect legacy CAN nodes in CAN bus. Implemented host application that interacts with users and communicates with CAN transceiver. Host application is run on MPC560xB platform (PowerPC). * Debugged secure CAN transceiver firmware prototype. * Analyzed and worked with team to clarify security requirements, product requirements and customer requirements * Worked with solution architects to provide architecture and low-level design of secure CAN transceiver firmware * Worked with NXP’s security team to implement security concepts: key management, monotonic counter, authentication, MAC calculation and MAC verification * Utilized DMA in design in order to improve CAN transceiver performance * Developed secure CAN transceiver firmware on S32K target using IAR workbench IDE * Measured performance of firmware using logic analyzer, CAN generator (PCAN) and Oscilloscope * Made design documentation, test documentation | |
| 10/2012 – 01/2014 | **SOFTWARE ENGINEER, Samsung Vietnam R&D center – Hanoi, Vietnam**  **SMART SWITCH WINDOW PROJECT**   * Worked on a project of **PARSING, CONVERTING, TRANSFERING** user data of different brands (Apple, Blackberry, Nokia, Sony, Android) between Window and Samsung devices. * Be responsible for all technology in project. * Worked with a number of data types: **CONTACT, MESSAGES, MEDIA, PHOTOS, RECORD, SETTINGS.** * Implemented PARSING data of CONTACT, MESSAGES, RECORD, SETTINGS. * Worked with various encryption types: BASE64, SHA, SERIAL. * Worked with many xxxx types: SQLite, XML, ENCRYPTED DATA. * Fixed defects reported by validation team and external customers, evaluated the impaction of the defects and integrated the solution. * Remote support for markets: US, EU, KOREA. * Analyzed **AUTOSAR** and **ISO 26262** safety requirements for communication drivers, created black box and white box tests to validate the driver. * Testing MCAL drivers with multiple compilers: GHS, DIAB, GCC, Linaro * Debugged and troubleshoot software issues using Visual studio. * Prepared working and training plan for team. | |
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| **EDUCATION** | | |
|  | * **Bachelor’s degree in Electronics and Telecommunication, 2009 – 2014**   Hanoi University of Science and Technology, Hanoi, Vietnam | |