Embedded software Engineer Embedded software Engineer Embedded software Engineer - Nike Portland, OR 4+ years of extensive experience in C, C++ on UNIX and Linux platforms and Embedded systems and automotive development. Experience in CAN based protocols and CAN based tools and validation. Experience in working on ECU's and the clusters and diagnostics. Experience in CAPL scripting and design and development of the infotainment for the vehicles. Expert in STL containers, Socket programming, Multithreading. Experience using Python and Shell Scripts. Experince in Linux ubuntu,debain,redhat versions. Experience with various testing tools gtest, coverity,cmock. Experience with Locomotive component development and engine development. Experience with Firmware. Experience with networking protocols. Experience in 3GP and LTE, CDMA, EvDO, WCDMA, GSM/EDGE, TCP/IP. Extensive experience in Media access protocols and security potocols. Experience working on a wide range of microcontrollers/microprocessors such as 8051, Raspberry pi, ARM, PIC. Experience of software development under real-time and integration of software onto hardware platform. Understanding of Printed Circuit Board (PCB) schematics and layout designs. Experience and Knowledge in writing queries, stored procedures, and triggers in RDBMS Oracle10g/11g,SQL,PL/SQL. Fully conversant with Systems Development Life Cycle (SDLC). Experience with automotive software AUTOSAR. Worked on DAVINCI developer in AUTOSAR. Experience with REST API. Worked on HIL TESTING. Well versed with Agile, Scrum, and Waterfall methodologies. Experience with various source control tools like cvs, svn and git/GitHub. Used Jira, bugzilla, and other project management tools. Experience in designing and developing web pages using HTML and CSS and working with MVC architecture. Experience in developing C++ services using web services architecture, SOAP, WSDL, and XML. Experience in Socket Programming, IPC (Inter Process Communication) mechanisms under different OS/RTOS. Experience with Embedded pro C. Knowledge on SQL server BI tools SSIS, SSRS and software design, code optimization, networking TCP/IP, operating systems. Excellent knowledge of C++ templating, C++11, embedded systems design and developing Experience with Linux centos. macros, routines in C++. Experience in Cloud Integration process for configuring multiple application programs to share Experieence with

HMI tools ALTIA. Experience and knowledge of IEEE802.11 Wi-Fi protocols such as 802.11b/g/n/ac, hostapd, WPA supplicant, Security Protocols (WPA, WPS), Hotspot 2.0, BSS Transitions, 802.11 Measurements. Work Experience Embedded software Engineer Nike - Portland, OR January 2016 to Present Responsibilities: Developed embedded software controls algorithms using Matlab/Simulink and, generated auto-code and wrote hand-code when necessary; integrated resulting software into Active Safety software product line. Responsible for the development, implementation, and testing of new Active safety software functionality along with the analysis and correction of defects in existing software. Gained experience with Serial Data busses, including LIN, CAN, CAN FD, SENT, FlexRay and Ethernet. And used Vehicle Spy and CANalyzer to log/monitor the CAN traffic. Tested the software in the vehicle and on the HIL bench using ETAS INCA and dSPACEMicroAutobox. Worked with validation and software teams and carried out the CAN based valisation and diagnostics. Worked on flashing procedures and ECU development softwares. Worked on the clusters and infotainment panels. Worked on embedded based C coding and debugging. Worked on the vehicle ECU's, clusters, diagnostics and softwares. Worked in VxWorks and QNX. Worked DDS layer for the design and development of the components. Conducted and analyzed functional user requirements for developing embedded software using DOORS. Worked on the cMake files in the repositories. Analyzed the data collected from the vehicle using playback models and wrote the reports incorporating results and recommended the software changes. Supported software optimization in embedded cores to meet real-time performance requirements for time-critical ADAS and Self-Driving applications. Worked in 3GP and LTE and worked on the socket based based programming using CDMA. Worked on Autosar model and worked on Da Vinci Developer. Performedunit, integration, and system level testing, and submitted complete reports of code coverage, functionality errors using Simulink Test. Designed all the required circuit schematics in Proteus Simulator. Worked on QT QML 4.8 and 5.1. Programmed existing GUI'S using QT. Successfully booted images on the SOC such as ARM Cortex-A8, M3, M4. Worked on HMI tools for the automotive infotainment. Built the application using the rogue wave libraries. Deployed Buildroot tool in linux then

configured the system configurations, target options and enabling the linux kernel later booted the images on to the embedded hardware. Installed the cross-tool chain in Ubuntu and complied the U-boot. Involved in Development of instrument cluster features in an HMI Modeling toolchain Unit, feature, and functional testing Issued debugging, root-cause analysis, and documentation Worked on c++ based application using 802.11. Programmed the existing GUI'S and worked with the team integration engineers. Coordinated with of a team of HMI developers Worked on cross compilation of x64 and intel. Deployed the Linux Kernel source code from Git repository and cloned in the terminal then modified the C code for device drivers of SPI, I2C and CAN for hardware (Nvidia dalmore). Developed the C code for handling the peripherals on board and drivers on SOC. Worked on oracle pro C Created the Makefile using the source code of different controllers like USB, SPI, ADC, GPIO etc. Developed Application that would allow transfer of log files from Linux computer to Linux server using C++ multithreading environment. Experience with voice recgnition. Execution of Test cases, Review log and Test Summary report. Worked on Big fixes and memory management. Experience with Rogue wave. Worked on REST API. Worked on oracle pro C and sql pro C Worked closely with controls engineering teams and systems engineering teams to ensure inter-operability of subsystems C/C++ Embedded Developer Cognizant, Hyd March 2014 to November 2015 March 2014- Nov 2015 Role: C/C++ Embedded Developer Responsibilities: Responsible for application development using C++, Unix, Oracle, SQL, PL/SQL, packages, stored procedures, SQL*Loader and UNIX Shell scripting. Worked with firmware SSD. Developed C++ Trade Capture and Processing application which is a single unified platform for booking and tracking Credit derivatives like CDSI, Single Name CDS, and Index Tranches, etc. using network/socket programming and multithreading concepts. Designed graphics with HMI/SCADA software, Schneider Citect, Viejo designer and iFIX. Developed, Installed and modified HMI software as per business needs. Wrote the cMake files which had the project configuration. Involved in supporting HMI installations, remote access of devices as per requirement. Tested and maintained document on HMI operations. And also involved in configuring windows and HMI software Responsible for providing technology solutions to the credit

risk management business (specifically commodity derivatives and FX options) Worked on IEEE 802.11 for the excgange of messages. Worked on DDS libraries Worked on tcp/ip and ethernet protocols Worked on oracle pro C. Worked on the security protolcs for the cross compilation of architecturesand exchanges of information using WPA and WPS. Worked on several security protocols. Worked on Sysml diagrams in Magic draw. Developed SOAP services in C++ for booking trades for derivative instruments and receiving orders from external interfaces like SEF, ICELINK. Responsible for providing technology solutions to the equity business globally including design, development, maintenance, and user training of all vended and internally developed technologies. Developed asynchronous event model for processing and tracking transactions using RabbitMQ. Worked on pro Cdata types. Worked on HMI tools in clusters for the automotive architectures to enhance the design. Designed, developed and implemented new classes and objects in C++ for handling various trade and clearing events. Utilized various object-oriented techniques and implemented new logic for processing ICELINK events and CLEARING messages. Designed, developed, and deployed new processes for sending trading events to downstream RISK applications. Developed Application on REST API. Worked on locomotive based components with GE and also powertrain and engine based control and logging. Designed and programmed C++ applications, and used Microsoft Foundation Classes (MFC). Fixed bugs in C++ and Java code: program crashes, memory leaks, performance bugs. Wrote scripts in Python with Django as the underlying DB interface layer to load some targettables from the new tables in the new DB designed. Designed and implemented embedded real-time control system software usingThreadX Embedded C/C++ coding in FreeRTOS (VxWorks) environment. Support modules for implementation using PL/SQL Scripts, Unix Shell Scripts and Pro*C. Developed embedded C++, real time SCA compliant QT software objects. Developed tools for SCM systems monitoring, management, troubleshooting, auditing and reporting, repository. Worked on QT and qml version and QT widgets. Experience in automation of test cases using Python, C and Shell script. Trouble shooting experience with SOAP/REST Web Services. Experince with ZMQ. Worked on protocols like IEEE802.11 Wi-Fi protocols such as

802.11b/g/n/ac, hostapd, WPA supplicant, Security Protocols (WPA, WPS), Hotspot 2.0, BSS Transitions, 802.11 Measurements Used the HM tools like Altia for the existing GUI'S. Experience with google Protobuf. Experience with with bug tools like Jeera. Extensively used the repositories like GitHub and SVN. Actively participated in all the stages of SDLC, beginning from understanding the basic programsand creating the requirement specification and requirement Analysis, Design, Development, Programming and Changing UI screens using C++/QT Used multi-threading extensively. Implemented RS-232, RS-485, SPI, I2C and other specific communication protocol libraries to communicate microcontrollers and peripherals. Improved design using RS-232 communication from development board to PC display software by creating a Windows application to read the RS-232 data that sent data via Ethernet to display. Hands on Experience in developing the C code in MPLAB XC8 compiler using different Microchip Microcontrollers like AT32UC3CXX, dsPIC33 etc. Modified C\C++ code on 32 Bit/64bits environments to support enhancements, fixed bugs in the existing software in multithreaded. Designed and developed Embedded Control software using C/C++ in a Eclipse FreeRTOS environment. Experience with Rogue wave library. Troubleshooting LAN and WAN problems, Application working slow problems. Worked on SDLC methodologies like Agile involved in the development of the project. Identified Test Scripts for Regression testing. Reporting daily testing status report Unit Testing, Integration and deploying the entire product. Involved in integration of applications and maintained versions using VSS (Visual Source Safe). Analyzed UI Design and Specification document provided by client. implementation of GUI interface from MFC based applicationrunning on Windows to a QT based application running on Linux. Programming and Changing UI screens using C++/QT. Used multi-threading and thread synchronization extensively.

Designed, coded, debugged and unit tested BIOS code to enable different Server platformfeatures. Worked on Autosar software architecture. Used C++ interface/SQL to update/retrieve information from MySql DB. Worked in Agile (Scrum), which included short term goals, iterative development and dailystand-up meetings. Environment: C, C++, Design Patterns, SQL, Python, SVN, GitHub, Jira, OOAD, XML/JSON, JavaScript, STL, multi-threading, VISUAL C++

C++ Developer Maruti March 2013 to March 2014 Responsibilities: Developed embedded software controls algorithms using Matlab/Simulink &Stateflow to detect the failures of various sensors and actuators used in diesel engines. Developed and modified CAN Data Dictionaries using CANdb++ to test the controller software and interfaces between various sensors and control module during the development phase. Worked closely with System and Calibration engineers to fix issues in code and to create new requirements. Worked on locomotive based design and programmed the GUI using HMI tools. Performed unit testing and debugging of the Handwritten/Auto-generated C code using Lauterbach/Trace32 debugger. Worked on qt widgets.

Develop Test cases for various parts of code/model and tested using HIL simulators and ETAS INCA software. Fixed problems in code and design with the help of collected data and analyzed it using MDA (Measure Data Analyzer). Performed peer review of code, software documents, requirements and test cases developed by the team. Environment: Control Algorithms, CANdb++, Matlab, Simulink, C, Lauterbach/Trace32, HIL, ETAS INCA, MDA Education Masters in Electrical and computer Engineering in Electrical and computer Engineering University of Bridgeport - Bridgeport, CT 2017 Bachelors In electronics and Communications in electronics and Communications Nagpur University - Nagpur, Maharashtra 2014 Skills Visual studio, C++, Design patterns, Git, Jenkins, Oop, Python, Scripting, Svn, Soap, Sockets, Tcp/ip, Aix, Linux, Red hat, Shell scripting, Solaris, Sun, Db2, Microsoft sql server

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