



Ayan Pahwa



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Work Experience

- **Embedded Software Engineer: Mentor Graphics- A Siemens Business, Global RnD, Automotive Business Unit, Embedded Software Division (June 2016-Present)** *(13/06/16 - 02/04/17 on contract position, 03/04/17-present as full time employee)*
 - Worked on developing customised Embedded Linux distribution for automotive Advance Driver Assistance System(ADAS) and in-vehicle-infotainment(IVI) head units systems based on GEN-IVI compliant, on top of Mentor Embedded Linux(MEL), powered by open-embedded and yocto project.
- **Embedded Linux DevOps Intern (Embedded software) - :** Mentor Graphics, Embedded Software Division (December,2015 - May-2016)
 - Automating existing build and test suites like GStreamer, QT, wpa-supPLICANT, connman, libcurl, iproute2 etc.
 - **Major Project:** WiFi test suite to test target connection to different configuration of an Access Point- open, WEP, WPA, WPA-2.
 - **Major Project-II:** BootBox to automate flashing of embedded targets.

Professional Skills

PC/Web

- Understanding of open source software licensing package porting and cross compilation.
- Experience working on professional agile and DevOps tools such as **JIRA, Confluence, TestLink, Jenkins, Travis CI, Github, GitLab, GitLab-CI, Basecamp, WebEx.**
- Experience in scripting using **Bash shell and Python.**
- **Experience with Amazon Web Services tools.**
- Sound knowledge of cyber security, vulnerabilities and attacks like DDos, Brute force, Phishing, SSL Stripping, Reverse Engineering networks, HID vector attacks.
- Sound knowledge of IoT protocols like **MQTT, CoAP, LWM2M, BLE.**
- Schematic, PCB designing, PCB fabrication, component selection and soldering(TH, SMD).

Embedded Systems

- Worked on Embedded Linux and RTOS based systems- Busybox, Yocto, OpenWRT, Debian, freeRTOS.
- Used toolchains for cross compilation - CodeSourcery, Xtensa, Linaro, Yocto, AVR/ARM-gcc.
- Experience working with microcontrollers (8051, AVR, ARM7, MSP430, ESP8266, ESP32, Xtensillia, ARM Cortex M4) with advance peripheral interfacing like **i2c, SPI, UART, USB, CAN.**
- Worked on projects based around radio frequency including **Zigbee, Bluetooth Low Energy, WiFi, Infrared, Nordic** based RF transceivers.

Research and Publications

S.No	Topic	Conference/Journal	Status
1	Automated Embedded Software DevOps using BootBox	IEEE ELECTRONICS MAKERS-2017	ACCEPTED and PRESENTED July 2017
6	Reverse Engineering IoT Devices	<i>Hackaday, O'reilly, Apple iBeacons, HackrNews, Haki9 magazine(Poland), etc</i>	August 2017 Reference: https://goo.gl/W3avbF
8	Getting started with Embedded Python: MicroPython & CircuitPython	Speaker at PyCon India 2017	September 2017
9	Technical Reviewer of book - Designing purpose build drones using Pixhawk	Packt Publisher	December 2017

Academics

QUALIFICATION	SPECIALIZATION	INSTITUTE	BOARD/ UNIVERSITY	CGPA/ PERCENTAGE	YEAR
Bachelors of Technology (B.Tech)	Applied Electronics and Instrumentation	JRE group of Institutions	U.P.T.U	73.52%	2012 - 2016
XII	PCM	St.Lawrence Convent	C.B.S.E	67%	2012
X	—	St. Lawrence Convent	C.B.S.E	8.6	2010

Projects Online Documentations

Blog : <https://codeNsolder.com>
GitHub : <http://goo.gl/ckVLpf>
Element14 : <http://goo.gl/diCxPO>

Other:

- **Date of Birth:** August 27, 1994
- **Youtube Channel:** <https://youtube.com/c/iAyanPahwa>
- **Passport Status:** Available
- **Current Location:** New Delhi City, INDIA