

Sayooj K Karun

An Embedded Software Engineer with 3 years of experience in Linux Networking, Audio and BSP.

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EXPERIENCE

VVDN Technologies Pvt Ltd., Chennai — Embedded Software Engineer

January 2017 - PRESENT

RESPONSIBILITIES:

Develop applications for various wireless products.
Modify Wifi Driver and Linux kernel for supporting various features.
Board Bring-up.
Bug Fixing in Wireless Driver and application.
Audio Driver Development
Wireless Mesh Stack Development(802.11S).

EDUCATION

PPG Institute Of Technology, Anna University, Coimbatore — Bachelor of Engineering (B.E.) in Electrical and Electronics Engineering

2013-2016

Graduated with a CGPA of 7.14

Anndavar Polytechnic College, Department Of Technical Education., Erode — Diploma in Electrical and Electronics Engineering

2011-2013

Passed with a percentage of 91.5%.

SDV English Medium Higher Secondary School, CBSE., Alappuzha — +2

2009 - 2011

Passed with a percentage of 77%.

SDV English Medium Higher Secondary School, CBSE., Alappuzha — 10th

2009 - 2011

Passed with a percentage of 85%.

SKILLS

C

Networking

Audio Drivers

Linux Application Layer Programming

Linux Device Driver

IEEE80211(ac/ax)

Peripheral Interfaces(i2c, mdio, I2S, UART, RGMII).

Has knowledge of Linux Bridge

OS AND TOOLS

Windows, Linux, MAC OS

Wireshark

GDB

JIRA

Firmware Development of Wifi Access Point supporting 802.11ac — Platform: QUALCOMM IPQ4018

CONTRIBUTION:

Developed URL tracking feature.

Implemented a feature which monitors critical processes running on theBoard, and restarts them if it crashes, using shell script.

Fixed various application related bugs.

Amazon Alexa smart speaker — Platform: QUALCOMM IPQ4019

CONTRIBUTION:

Board Bring up with the required peripherals, by modifying the device tree.

Developed platform driver for the audio codec.

Worked on the Audio echo cancellation Path.

Worked on the I2S transmit and receive path.

Worked on Alexa Authentication with mobile App.

Designed and developed a configuration manager for the device.

Wrote a binary which writes board data(MAC address, device ID etc) to a partition.

Resolved a connectivity issue in client mode.

Long Distance Wireless Link — Platform: QUALCOMM IPQ8064

CONTRIBUTION:

Board Bring up with the required peripherals, by modifying the device tree.

Bring up of Marvell-886321 Switch.

Developed VLAN/QonQ feature.

Developed Bonding feature.

Developed an application to control the switch from userspace via mdio lines.

Developed a switch driver for u-boot which will bring up the switch to minimum speed configuration.

Synchronised the switch with STP.

Developed a sysfs interface to dump various device statistics.

802.11S Mesh Network — Platform: QUALCOMM IPQ807X

CONTRIBUTION:

Board Bring up with the required peripherals, by modifying the device tree.

11S Mesh VAP bring up.

Wrote the HWMP routing protocol for the 11S mesh stack.

Developed MAC-ACL for Mesh Networks.

Personal Details:

Father's Name : Krishnan A.S

Mother's Name : Shailaja Krishnan

Date of Birth : 27th August 1994

Languages Known : Malayalam, English, Hindi, Tamil.

Marital Status : Single

Interests : Football, Books.

Declaration:

I hereby declare that the above mentioned details are true to my knowledge.

(SAYOOJ K KARUN)