PURANJAY MOHAN

Email: puranjay12@gmail.com **Phone**: +91-8988095892 **Website**: puranjaymohan.github.io
LinkedIn: https://www.linkedin.com/in/puranjaymohan/ **GitHub**: https://github.com/puranjaymohan/
Location: Chandigarh, India

EDUCATION

SRM Institute of Science and Technology ***B.Tech. Electronics and Communications Engineering***
Chennai, India **Jul, 2018 - May, 2022**

- Cumulative **GPA**: 9.7/10 (Till 6th semester)

WORK EXPERIENCE

Google Summer of Code Student [LINK] | **GSOC @ The Linux Foundation** [LINK] **May, 2021 - Aug, 2021**

- Responsible for development of a Linux Kernel Driver for Analog Devices' ADXL355 Accelerometer.
- Enabled easy access to the accelerometer by the userspace through Sysfs interface of the kernel.
- Utilized IIO Subsystem APIs to build the driver and sent it upstream [LINK].

Linux Kernel Mentee [LINK] | **LKMP @ The Linux Foundation** [LINK] **Jun, 2020 - Sep, 2020**

- Responsible for adding the support for Latency Tolerance Reporting (LTR) in the Linux Kernel [LINK].
- Decreased the power consumption of PCIe Devices by allowing them to enter low power mode.
- Utilized the LTR device specific method of the PCIe devices to allow latency reporting in the PCI Subsystem.

Embedded Design Intern | **Electro Waves Electronics** **Dec, 2019 - May, 2020**

- Responsible for the development of an Human Machine Interface for a DC electric vehicle charger
- Decreased the response time of the previously used display by **90%**.
- Utilized the STM32MP1 processor with a custom built operating system for the HMI.

OPEN SOURCE CONTRIBUTIONS

Linux : torvalds/linux **Embox** : github/embox **Zephyr RTOS:** github/zephyr-rtos

PROJECTS

Wee OS | Tiny RTOS for ARM Cortex M3/M4 processors [LINK TO PROJECT]

- A modular Real Time Operating System built from scratch for ARM Cortex-M3/4 devices.
- Supports round-robin and weighted round-robin scheduling algorithms. It supports 4 hardware devices.
- Achieves a smaller memory footprint than mainstream RTOSs when only basic features are enabled.

AVRLIB | Open source API library for AVRMicrocontrollers [LINK TO PROJECT]

- An Embedded C API for interfacing peripherals like UART , I2C , SPI ,LCD, etc. with AVR microcontrollers.
- Allows easy development AVR-based solutions without worrying about low-level embedded programming.

MyUno | An AVR based microcontroller board similar to Arduino Uno [LINK TO PROJECT]

- AVR Atmega328P microcontroller based development board compatible with Arduino Uno.
- Improved the EMI rejection of the circuit using ferrite beads etc. that are not available in Arduino Uno.

PUBLICATIONS

A Tiny CNN Architecture for Medical Face Mask Detection for Resource-Constrained Endpoints
Puranjay Mohan, Aditya Jyoti Paul, Abhay Chirania | **Springer Conference Paper** [LINK TO PDF] [LINK TO WEBSITE]

Rethinking Generalization in American Sign Language Prediction for Edge Devices with Extremely Low Memory Footprint
Aditya Jyoti Paul, Puranjay Mohan, Stuti Sehgal | **IEEE Conference Paper** [LINK TO PDF] [LINK TO WEBSITE]

SKILLS

Programming Languages:	**Proficient**: C, Assembly(x86, ARM), Python	**Familiar:** C++, Java, php
Technologies / Tools:	**Proficient**: Git, Make, GCC, Numpy, Matlab	**Familiar:** Keras, Matplotlib, Amazon AWS
Hardware:	**Proficient**: AVR, ARM, Raspberry Pi, STM32	**Familiar:** PCB design, SPICE