## Puranjay Mohan.

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### **EDUCATION**

### Bachelor of Technology in ECE SRM Institute of Science and Technology ☑

07/2018 - Present

9.8 CGPA (Till third Year)

### **WORK EXPERIENCE**

## **Google Summer of Code 2021 Developer**The Linux Foundation

05/2021 - Present

https://github.com/puranjaymohan/GSoC-2021-DOC

Achievements/Tasks

- Developed a device driver for Analog Devices' ADXL355
   Accelerometer using Linux Kernel's IIO Subsystem.
- Enabled userspace applications to easily utilize the accelerometer without knowing it's working.

## **Linux Kernel Mentorship Program Mentee**The Linux Foundation

06/2020 - Present

https://mentorship.lfx.linuxfoundation.org/project/5cdea024-4cc8-4e48-bc61-3660b5f06978

Achievements/Tasks

- Worked on adding the support of Latency Tolerance Reporting to Linux Kernel's PCI Subsystem.
- Decreased the **power consumption** of PCI devices significantly.

## Embedded Design Intern Electrowaves Electronics Pvt Ltd

12/2019 - Present https://electrowaveselectronics.com/

Panchkula

Achievements/Tasks

- Developed a Human Machine Interface for an EV Car Charger based on the STM32MP1 processor. Increased response time of the old HMI by 90%.
- Developed a custom Embedded Linux distribution for the STM32MP1 processor using the Yocto Project.

Contact: Sahil Garg - sahilgarg@electrowaveselectronics.com

### Al Intern

### Fitnano Technologies Pvt Ltd

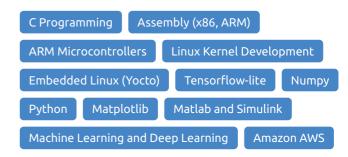
03/2019 - 04/2019 Greater Noida, India Fitnano is a startup incubated by ST Microelectronics startup labs, working on Internet of Things and safety wearables.

Achievements/Tasks

 Built a Face recognition System based using Dlib and deployed it on AWS lambda. It was deployed in 3 schools. It was used for the automatic attendance of teachers.

Contact: Tarun Shekhar - tarun@fitnano.com

### **SKILLS**



# PERSONAL PROJECTS AND PUBLICATIONS

### WeeOs - A tiny Real Time Operating System

- https://github.com/puranjaymohan/wee-os
- A small RTOS build from scratch for ARM Cortex-M3/4 devices.
- Supports two scheduling algorithms and four hardware devices.
- Achieves smaller memory footprint than mainstream RTOSs.

## A Tiny CNN Architecture for Medical Face Mask Detection for Resource-Constrained Endpoints

- https://arxiv.org/abs/2011.14858
- Research paper published at ICEEE 2021 (Springer LNEE)
- Deployed a novel CNN architecture on ARM Cortex-M7 using Tensorflow Lite-Micro achieving 99.81% accuracy.

### AVRLIB - Open source API library for AVR Microcontrollers

- https://github.com/puranjaymohan/AVRLIB
- Embedded C API for interfacing peripherals like UART, I2C, SPI, LCD, etc. with AVR microcontrollers.
- Makes it super easy to develop AVR-based solutions without worrying about low-level coding.

### MyUno - An AVR Microcontroller Dev Board

- https://github.com/puranjaymohan/MyUno
- Designed a development board for AVR Atmega 328P.
- Used Altium Designer for designing schematic and pcb.
- Made the Arduino UNO circuit more robust by adding protection features.

### **OPEN SOURCE CONTRIBUTIONS**

### Linux Kernel

Contributed more than 40 patches to the kernel. I maintain two IIO Drivers, for TMP117 and ADXl355 Sensors. https://git.kernel.org/pub/scm/linux/kernel/git/next/linux-next.git/log/?qt=author&q=puranjay+mohan

#### **Embox**

Ported the Embox RTOS to ST's Nucleo-l476rg. https://github.com/embox/embox/pulls? q=is%3Apr+is%3Aclosed+author%3Apuranjaymohan

### Zephyr

Added support for TMP117 Sensor in the Zephyr project. https://github.com/zephyrproject-rtos/zephyr/pull/30704