# VAIBHAV ELANGOVAN

**Inspired by Technology , Driven by Purpose**


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## EXPERIENCE

### MASTERS INTERNSHIP

**Desouttertools**

02/2020 - 11/2020 | Nantes, France

- Building an API that uses FTDI CDM drivers to send DMX signals to control a Projector using ENTTEC Open USB. Implementing a Computer Vision Algorithm to track and follow the brightest spot (Light beam) in the captured video stream (Real Time).
- The above is used to build the control law to make the Projector point to the location of the tool. The following link provides a glimpse of the proposed solution. click here.
- Also worked on a project to Containerize an embedded application (for ARM processors) of Desouttertools using Docker , Docker Swarm and Kubernetes.

### PROJECT ENGINEER

**Ecole Centrale De Nantes**

09/2019 - 01/2020 | Nantes, France

- Driver development for a LoRa module on msp430 with Trampoline(Real time OS) ported onto the msp430 board and routing the packets to the Internet via a gateway with encryption(AES cyphering algorithm) for IOT applications. The following is the contributed library to the master project TrampolineRTOS on my git hub. click here.

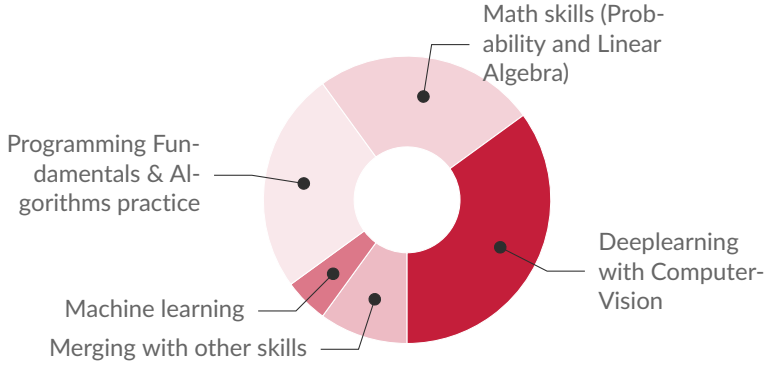
### PROJECT ENGINEER

**Ls2N LAB**

5/2019 - 07/2019 | Nantes, France

- Software development for a pipe inspection robot using Beaglebone-Green (Embedded Linux) and control of motor using machine learning (Regression methods).

## CUMULATIVE DEVELOPMENT




## MOTIVATION

*"Focused in building myself as a problem solver with a strong combination of Machine Learning(Deeplearning), Computer Vision and Embedded Systems"*

## EDUCATION

### M.S. in Robotics

**Ecole Centrale De Nantes**

Sept 2018 – Nov 2020

### B.E. in Electronics

**Visvesvaraya Technological University**

Aug 2013 – Jan 2018

## PERSONAL PROJECTS

### Autopilot Implementation using NAVIO2 and Rasberry-Pi

05/2020 - present

- Implementing the dynamic control of a Quadcopter using Raspberry Pi,NAVIO2 flight controller and the Flight stack (Software). Future work includes Computer Vision to Localize/Map using Visual SLAM.

### MICROMOUSE

02/2018 - 05/2018

- Building of a micro mouse robot based on atmel2560 microcontroller , ultrasonic sensors and testing out the algorithms (Flood fill) to solve the maze in real time. click here to view project.

## TECHNICAL SKILLS

C/C++ | Python | ComputerVision(OpenCV) | Machinelearning (Keras & TensorFlow) | ROS | Ardupilot | Mavlink | Mavproxy | Dronekit | Docker & Swarms | Kubernetes

## LANGUAGES

**English**
**French**
**Hindi**