# Soham Bhave

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OBJECTIVE

Seeking an internship at a reputed organization which provides an opportunity to enhance my skills and challenge my abilities.

EDUCATION

Degree	College	University	Passing Year	Pass Percentage
B.E E&TC	MMCOE,Pune	SPPU	2020	8.39(TE Sem-1)

### PROJECTS

#### 1. Robocon 2018

- Worked with college's Robocon team to design and manufacture robots.
- Primarily involved in path planning and odometry for an autonomous robot.
- Worked with a variety of sensors (Ultrasonic, IMU, Infrared, Rotary Encoders) and actuators (DC Motors, linear pneumatic actuators)
- $\bullet$  Programmed Microcontrollers (Atmega 16,<br/>Atmega 128,LPC 2148 ,Arduino) in Embedded C

#### 2. Wrist mounted health monitor

- Built a wrist mounted system which could measure heart rate, body temperature and detect a person fallling over.
- It communicates this information over the internet via Blynk server to the concerned.
- Worked with NodeMCU, Optical heart rate sensor, temperature sensor, OLED display
- Designed a PCB for the system

## 3. Home Automation system to save Electricity

- Designed and developed a system which detected and counted the number of people in a room using ultrasonic sensors and the presence of light using an LDR.
- Replaced the ordinary two way switches by relays.
- Using the data switched the tubelight and the fan by using an Arduino microcontroller

#### 4. Robotics Specialization on Coursera

- Implemented various simulation projects while completing courses under a Robotics specialization on Coursera.
- Specialization included courses on Aerial Robotics, Robotic Motion Planning, Robotic Perception and Robotic Mobility by the University of Pennsylvania.
- Simulations include:
  - 3D control(using PID) and trajectory planning of a quadrotor
  - Path planning algorithms
  - 3D projection and pose estimation from visual data.

# Training and Internships

- Intern at Grind Master Machines, Aurangabad (15th December 2018 17th January 2019)
  - Developed a machine learning algorithm to determine the touch time for superfinishing/ micro-finishing processes based on the input roughness parameters of the job to achieve desired target roughness parameters.
  - Collected the data for implementing machine learning algorithm by processing jobs and then measuring their roughness parameters
  - Implemented linear regression on the data to predict the expected touch time using Excel Macros.
  - Evaluated the performance of the model on actual jobs for different processes.