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# Career Objective

To obtain a niche position in the Electronics Industry where I can utilize my experience and skill of combining hardware and software to create a meaningful product for the organization.

# Education

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| 2015 - 2019 | Currently studying in third year, Electronics Engineering  Sardar Patel Institute of Technology | 7.3 CGPA |
| 2015 | HSC - Maharashtra State Board  PACE Junior Science College, Dadar | 82.31% |
| 2013 | SSC - Maharashtra State Board  St Xavier’s High School, Fort | 87.5% |

# Projects and Competitions

## e-Yantra Robotics competition 2016 (1st Prize)

* e-Yantra is an initiative to spread education in Embedded systems and Robotics by **IIT Bombay sponsored by Ministry of Human Resource Development**
* Students in a team of 4 program a given robotic platform to solve a problem. The competition was from **Nov 2016 to April 2017**
* In eYRC 2016 - **22,608 Students in 5,652 Teams registered for the event. 3,620 Students in 905 Teams** participated in the competition which were spread across 7 themes
* Our team came **first of the 167 teams** that participated in “Launch a Module” theme
* I designed the hardware of the robotic arms and did the embedded C programming for the Firebird V robot. Click on this [link](https://vimeo.com/227592590) for a video of the project

## Formation control of Multiple Swarm Robots – eYantra Summer Internship

* The objective of this project was to explore algorithms to control groups of robots all at once and make different swarm formations
* I did the embedded C programming for the swarm robots
* Click on this link for a video of the swarm formations

## DIY Time-lapse Dolly in the Raspberry Pi Contest 2016 (1st Prize)

* Instructables is a website specializing in user-created and uploaded do-it-yourself projects
* The Instructable can be viewed at <http://www.instructables.com/id/DIY-Time-Lapse-Dolly-1/>
* This setup is used for adding motion to a time lapse photo sequence
* **I conceptualized, built and wrote the Instructable for building the Time Lapse Dolly**
* I won the first prize (3 first prizes) in this competition out of 198 entries from around the world

## Robot development using ROS (ongoing)

* This project deals with exploring the Robot Operating System (ROS) framework
* We will develop a robotic system with various sensors and actuators to understand the underlying concepts
* The outcome is to create a robot/quadcopter capable for forming a 3-D map of the surroundings using a depth camera (Microsoft Kinect)

## Constant Current Load (ongoing)

* This circuit uses a MOSFET and an op-amp to create a variable resistance load which will maintain a set current flowing through it
* The current and voltages are displayed on an onboard LCD using a ATMega microcontroller
* It can be used to test solar panels, power supplies to test the ratings and specifications
* I designed the circuit and built a PCB for the same

## Troubleshooting competition (2nd Prize) – Department of Electronics SPIT

* This is an annual competition held by the Electronics Department of SPIT
* The task was to debug an electronic circuit in simulation and hardware, find out the fault and rectify it

# Trainings and Internships

* IIT Bombay - 7 weeks summer residential internship (22/May/2017 to 7/July/2017) under the eYantra Summer Internship 2017 program
* SPIT - 3 weeks summer training program on Embedded Systems Design held from 13/June/2016 to 8/July/2016
* SPIT - 2 days MSP-FPGA software and hardware co-design held from 16th to 18th September 2016 at SPIT, Mumbai

# Technical Skills

* Embedded C programming (ATMega µCs, esp-8266, Arduino)
* Complete PCB designing and fabrication (power supplies, µC board, constant current load PCB)
* Basic image processing using OpenCV and python
* Basic FPGA programming Atlys Spartan-6 trainer board
* Project Management using GIT
* Document formatting using LATEX

# Soft Skills

* Patient and persistent in completing my projects
* Willing to learn new skills as per the requirements of the project

# Other Interests

* PADI Level 2 certified SCUBA diver
* Sailing and Wind Surfing
* Photography
* Rubiks cube enthusiast

# Co-curricular activities

* SP-Open Mini 2015 (speed cubing competition) – in charge of volunteer training
* Class Representative – FY, SY and TY (Electronics Engineering)