

# Siddhant Saoji

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## EDUCATION

### IIT JODHPUR

PRE-FINAL YEAR BTech IN  
MECHANICAL ENGINEERING  
Expected Dec 2021

GPA: 8.76/10 (Dept. rank 2)  
(upto 5<sup>th</sup> semester)

### DEOGIRI JUNIOR COLLEGE

HIGHER SECONDARY (HSC)  
2017| Aurangabad, MH

Percentage: 87.04%

### STEPPING STONES

### HIGH SCHOOL

SECONDARY (CBSE)

2015| Aurangabad, MH  
CGPA: 10/10

## LINKS

Github:// [sziddhant](#)

LinkedIn:// [siddhant-saoji](#)

## UNDERGRADUATE

Kinematics of Machines and Mechanisms

Dynamics of Machines and Mechanisms\*

Linear Algebra and Calculus

Computer Programming

Engineering Mechanics

Mechatronics

Mechanics of Solids

System Exploration and Workshop

## AUDIT

Introduction to Robotics

Introduction to Image Processing

Machine Learning

Reinforcement Learning

Computer Vision Basics\*

\*ongoing courses

## SKILLS

### PROGRAMMING

Languages:

• C/C++ • Python

### SOFTWARES

• Matlab • Adams

• Cinderella • Gazebo

### OTHER TECHNOLOGIES

• Arduino • NodeMCU

• Raspberry Pi • Beaglebone

• ROS

## RESEARCH INTERNSHIP

### QRRT: QUALITY BIASED INCREMENTAL RRT FOR OPTIMAL MOTION PLANNING | SUMMER 2019

Guide: Dr Suril V Shah | IIT Jodhpur

- Biasing the nodes of Rapidly Exploring Tree for better and faster solution trajectories using **deep reinforcement learning**.
- Introduced goal bias as a hyper parameter for better results.

## PROJECTS

### ERGONOMICS OF ON-SCREEN KEYBOARD | B.TECH PROJECT

Guide: Dr B.Ravindra | IIT Jodhpur

- Analyzed the centroid computed using various **image processing** algorithms.
- Studied the effect of pressure and different finger on the centroid.
- Applying the concept for suggesting improvements for better ergonomics.

### NETRA | IMU BASED INDOOR NAVIGATION

Mentor: Dr B.Ravindra | Texas Instruments IICDC 2018

- Applied dead reckoning for indoor navigation without expensive infrastructure.
- Implemented on **Beaglebone black** and 9 axis IMU for the computation.
- Audio and haptic feedback for navigation especially for the visually impaired

### VOTING VADER | BLOCKCHAIN | IoT | MICROSOFT CODE.FUN.DO++ '19

Open Sourced [Github](#) | Submission video [YouTube](#)

- An **IoT based EVM** built on **Raspberry Pi** using **Azure Blockchain Service** as the backend.

### SECUREIT | GYMKHANA PROJECT | IIT JODHPUR

Open Sourced [Github](#)

- Built smart security and automation solution for STS, IIT Jodhpur.
- Used multiple layers of security such as fingerprint authentication and face recognition Technologies: - **Raspberry Pi, Python, Wit.ai, Flask, MySQL**

### BO | CHAT BOT | MICROSOFT CODE.FUN.DO++ 18

Open Sourced [Github](#) | Submission video [YouTube](#)

- Built a multi-functional chat bot deployed on **Facebook Messenger**, which can be used by affected people as well as rescue teams in case of a disaster.
- Technologies: - **Microsoft Azure, Python, LUIS, Flask, MySQL**

## HONORS AND ACHIEVEMENTS

- **Semi-finalist** in **DST** and **Texas Instruments** India Innovation Challenge Design Contest 2018 anchored by NSRCEL@ IIMB among 346 teams comprising of 1185 students from 180 colleges.
- 1<sup>ST</sup> Runner Up in **Microsoft** codefun++ 2019 at IIT Jodhpur.
- Placed among the top **0.5% of 1.4 million** applicants in JEE Advanced 2017.

## VOLUNTEER AND LEADERSHIP EXPERIENCE

- **Aeromodelling Club** | Captain • **Quiz Club** | Vice-Captain
- **Robotics Club** | Core Member • **IGNUS Inter college Fest** | Assistant Head, Services

## EXTRACURRICULAR

- Represented college basketball team in Sangram 2018 at IIT Roorkee.
- Participated in Tech-Fest organized by IIT Bombay.
- Participated in quizzes in 4th Inter-IIT Cultural Meet.