

Siddhant Saoji

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EDUCATION

IIT JODHPUR

PRE-FINAL YEAR BTech IN
MECHANICAL ENGINEERING
Expected Dec 2021
GPA: 8.73/10 (Dept. rank 2)
(upto 4th 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 Image Processing
Machine Learning
Reinforcement Learning*
*ongoing courses

SKILLS

PROGRAMMING

Languages:

- C/C++
- Python

SOFTWARES

- Matlab
- Cinderella 2.0
- Adams

OTHER TECHNOLOGIES

- Arduino
- NodeMCU
- Raspberry Pi
- Beaglebone

RESEARCH INTERNSHIPS

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 Science and Technology society of 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.
- 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.