

Siddhant Saoji

sziddhant.github.io
saoji.1@iitj.ac.in | (+91)9673262082

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 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

AREAS OF EXPERTISE

- Machine Learning • IoT
- Reinforcement Learning

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.
- 1ST 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.