Siddhant Saoji

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EDUCATION

IIT JODHPUR
Pre-Fianl year BTech in
Mechanical Engineering
Expected Dec 2021
GPA: 8.73/10(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
*ongoing courses

AUDIT

Introduction to Image Processing
Machine Learning
Reinforcement Learning*

SKILLS

PROGRAMMING

Languages:
• C/C++
• Python

SOFTWARES

• Matlab
• Cinderella 2.0
• Adams

OTHER TECHNOLOGIES

• Arduino
• NodeMCU
• Raspberry Pi
• Beaglebone

PROJECTS

QRRT:QUALITY BIASED INCREMENTAL RRT FOR OPTIMAL MOTION PLANNING* | Summer Project
Guide: Dr Suril V Shah | IIT Jodhpur
- Aim to bias the nodes of Rapidly Exploring Tree for better and faster solution trajectories using **reinforcement learning**.
- Introduced goal bias as a hyper parameter for better results.
- Implementing the qRRT algorithm for mobile robots.

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.
- Implemeted on **Beaglebone black** and 9 axis IMU for the computation.
- Audio and haptic feedback for navigation especially for the visually impaired

SECUREIT | Gymkhana Project |IIT Jodhpur
Open Sourced Github
- Built a smart security and automation solution for Science and technology society of IITJ to deploy in its rooms.
- Made an **android app** to generate OTP and monitor the room.
- 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++
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 among 346 teams comprising of 1185 students from 180 colleges

POSITIONS OF RESPONSIBILITY

Year	Role	Organization
2018	Captain	Aeromodelling Club IIT Jodhpur
2018	Vice Captain	Quiz Club IIT Jodhpur
2018	Core Member	Robotics Club IIT Jodhpur

EXTRACURRICULAR

- Assistant-Head of services department in Ignus 2019
- Played for the college basketball team in Sangram 2018 organized by IIT Roorkee.
- Participated in Tech-Fest organized by IIT Bombay.