Siddhant Saoji

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EDUCATION

IIT JODHPUR
Pre-Fianl 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
*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

EXPERIENCE

QRRT:QUALITY BIASED INCREMENTAL RRT FOR OPTIMAL MOTION PLANNING* |Summer 2019
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.

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.
- Implemeted 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 among 346 teams comprising of 1185 students from 180 colleges

POSITIONS OF RESPONSIBILITY

- **Aeromodelling Club** |Captain
- **Quiz Club** |Vice-Captain
- **Robotics Club** |Core Member

EXTRACURRICULAR

- Played for the college basketball team in Sangram 2018 organized by IIT Roorkee.
- IGNUS Inter college Fest |Assistant Head,Services
- Participated in Tech-Fest organized by IIT Bombay.