



SHIVAM JAISWAL



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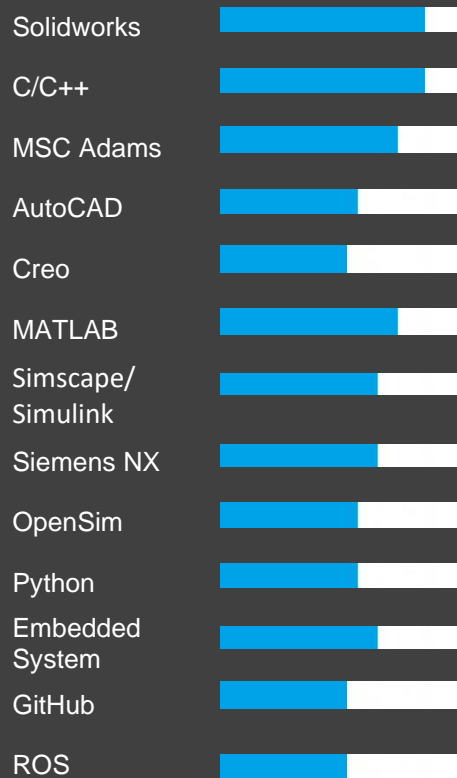


<https://kaalraavan.github.io/>

Objective

Want to work in the field of Robotics to use my knowledge for the welfare of the society and nature.

Skills



Languages



Education

School

High school
Senior Secondary School

Jagran Public School (2011-2014)

9.2/10 in year 2012
82.5 % in year 2014

Mechatronics

Bachelor of Technology

Manipal University (2015-19)

8.45/10 in year 2019

Robotics

Master of Technology

Defence Institute of Advanced Technology-DRDO (2020-22)

8.37/10 in year 2022



Projects

Robotic Arm

2017 (Ended)

Six Degree of Freedom arm Manipulator

To demonstrate forward kinematic for pick and place use using potentiometer.

3D Printer

2020 (Ended)

Fused Filament Fabrication, 3D Printer.

3D printer for personal use, using Marlin1.1 code.

Path Planning

2021 (Ended)

Path planning using D* Algorithm

Generating shortest path between two points with MATLAB.

Robotic Arm

2021 (Ended)

Four Degree of Freedom arm Manipulator

Simulation and Analysis of 4-Dof Manipulator in Adams.

Exoskeleton

2022 (Ended)

Cable-driven upper body exoskeleton

Simulation and control of cable-driven exoskeleton to provide assistance to elbow joint for weightlifting task.



Experience

CSIR-CSIO

2019 (Ended)

Surgical Robotic Systems

6-month Project Trainee on 2R arm manipulator.

CAIR-DRDO

2021-22 (Ended)

Simulation and control of Exoskeleton

10-months Project training on simulation and control of upper body exoskeleton for elbow assistance in weightlifting.

Agnikul Cosmos

2022 (Ended)

Space Silicon Engineer - Intern

2.5 month - Worked on **Ni-PXle HIL system** and Embedded system with **POSIX- IPC** handling.

SHIVAM JAISWAL

Learning

Image Processing

Raspberry Pi

Cocurricular



Photography



Photoshop



Cooking



Travel

Sports



Badminton



Table Tennis



Swimming



Chess

Strengths

Logics

Understandings

Creativity

Analysis

Strength to subdue weakness

Passionate to learn new things



Competitions

Microprocessor

2020-21 (Ended)

Swadeshi Microprocessor Challenge

To Use Made in India microprocessors for an application

Toy hackathon

2021 (Ended)

Toy hackathon by Government of India

To design toys based on Indian culture and education

AIM

2021 (Ended)

AIM by NITI Aayog, Government of India

Generating shortest path between two points with MATLAB.

Innovator 1.0

2021 (Ended)

Periyar U. Business Incubation Confederation

(Swachh Urjja: A Piezoelectric Way) Light up and control streetlights using Piezoelectric Material.

Robotic

2021 (Ended)

ARTPARK Robotics Challenge by IISc

Building a Mobile Manipulator Robot to clean Bathroom, made it to as top 30 teams all over India.



Publications

Path Planning

Elsevier-ScienceDirect

IFAC-ACODS-2022

<https://doi.org/10.1016/j.ifacol.2022.04.128>



Exam

Gate

Computer Science and Information Technology

Qualified Gate exam in Computer science in 2019 and 2020.

NPTEL

Hardware Modelling using Verilog.

Parallel programming using OpenMP.

NPTEL Topper 2017



Interest Area

Mechatronics design

Exoskeleton

Kinematic and Dynamic modelling

Multibody system design & simulation

Humanoid robotics

Control System

Robot Operating System

Cyber Physical System

Robotics

Mobile/ Aerial robotics

State Space Modelling and Control

Wearable robots

Rehabilitation robotics

Manipulator robots

Embedded system

CAD-Design