BHAVYA SHARMA

MASTERS IN PHYSICS, BITS GOA

CONTACT INFORMATION
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WORK EXPERIENCE

GRASIM INDUSTRIES, NAGDA
INTERN (05/2019 - 07/2019)

- Worked at Grasim Industries, Nagda, India. One of the biggest industries in India.

INDIAN INSTITUTE OF TECHNOLOGY, DELHI
INTERN (05/2020 - 07/2020)

- worked on control and locomotion of project Spiderbot

YOUNG TECHNOLOGY SCHOLARS, PLAKSHA UNIVERSITY
TEACHER (06/2020)

- Taught basics of Computer Science, Electronics and Cryptography as the final project

TRYSESSIONS ORG.
TEACHER (07/2020 - PRESENT)

- Teaching basics of Computer Science to students.

SANDBOX MAKERSPACE BITS GOA
PUBLICITY COORDINATOR (08/2019 - 05/2020)

- overlooked the publicity of the lab among corporations, other colleges and organizations.

COURSES AND CERTIFICATIONS

- **Workshop on Computer Management and security organized by Nettech**
  (10/2017)
  In this workshop we learnt about network management, basics of UNIX and networks ; FTP, DNS ,DHCP ,Samba and Proxy.Server configuration, Hacking and its Counter measures and cyber crime.
  Online courses-
- **(Coursera) -Building Arduino Robots and Devices**
  (by Moscow university of Physics and technology)
  In this course I learnt basics of electronics, Arduino programming and made a 180 degree surrounding mapping system.
- **(Coursera)- Course on Aerial Robotics by Penn State University under Professor Vijay Kumar**
- **(Coursera) Operating Systems**

RELEVANT COURSES

- Linear Algebra
- Probability and Statistics
- Non Linear Dynamics
- Robotics Specialisation : UPenn
- Theoretical Neuroscience
- Classical Mechanics
- Reinforcement Learning Specialisation

SKILLS

-ROS   -Gazebo   -MATLAB   -Simulink   - MS Adams
-AutoDesk Inventor   -Solidworks   -Fusion360   -OpenCV
-PyBullet   -Bokeh ,Altair, MatPlotLib   -HTML,CSS,JS
-Python   -C++

PROJECTS

PROJECT SPIDERBOT
(08/2018 - PRESENT)

- A Quadruped robot in the form of a spider which can locomote and analyse its surroundings using various sensors.

MOTION PLANNING OF LEGGED ROBOTS USING DEEP-RL
(07/2020 - PRESENT)

- Researching on the motion planning of different legged robots on legged terrains, and using RL for the Robot to learn Locomotion.

SELF-EXCITED BIPED MECHANISM
(11/2019 - PRESENT)

- Analysing self-excited walking of four-link biped mechanisms which are actuated at hip joints and passive at knee joints with stoppers.

BOEING AEROMODELLING COMPETITION TECHFEST IITB
(TEAM LEAD) (12/2017)

- We simulated various aerofoil and RC plane designs and created a prototype RC plane in compliance with the problem statement of the competition.

AIR-CUSHION VEHICLE (ACV) DESIGN
(08/2018 - 01/2019)

- Worked on build and design of an RC ACV prototype with a higher payload capacity and lower noise generation.

HOLTER MONITOR
(01/2019 - 05/2019)

- Making a heart rate monitor that is much more cost efficient than industrially sold heart rate monitors.

HUMAN MACHINE TEAMING
(01/2019 - 05/2019)

- Teaming swarm quadcopters with humans to provide efficient functioning, this project was in collaboration with DRDO.

SMART VISION ANALYSIS
(01/2019 - 05/2019)

- Improvision of Image detection algorithms by their comparision with how the human brain analysis pictures

MOTION PLANNING OF A VEHICLE
(01/2019 - 05/2019)

- wrote Python 3 code to simulate the motion of a F1 racecar on a complicated racetrack.

SHELL DEVELOPMENT
(05/2019-PRESENT)

- Made a Bash shell using C++