

Vibhor Aggarwal

Master's Student, Automotive Engineering RWTH Aachen

24 February, 1996 (23 Years)

Bayernalle 7, Aachen, Germany

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(+49)17659896222

vibhoraggarwal.github.io/

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vibhor.aggarwal@rwth-aachen.de

Skills*

5

Matlab, Simulink

5

CAD(Solidworks, Autodesk Inventor)

6

FEA(Ansys, Abaqus)

4

Gazebo

3

ROS,YARP

3

Languages*
English

_...g...c.

6

Hindi

6

German

3.5

Italian

2

*Scale 1:Beginner to 6:Proficient

Projects' Photos & Videos -



Summary

Automotive engineer with experience in cutting edge research on robot and vehicle dynamics. Interested to work in the field of Robotic Manipulation and path planning.

Education

M.Sc, Automotive Engineering

RWTH Aachen, Germany

B.Tech, Major: Mechanical Engineering

Minor: Applied Mathematics

Indian Institute of Technology Kanpur(IIT), India

Achievement and Awards

Best Under-Graduate project in Mechanical Engineering: IIT Kanpur 2017 Ranjan Kumar Memorial Award for best socially relevant project: IIT Kanpur 2017 Ranked 3rd in state and 914 among 1.4 million students: Joint Entrance Exam2013 Gold Medal in National Mathematics Olympiad: AISMTA 2013

Experience

Student research assistant C++ Simulink

May 2019-Present

Sep 2018-Present

July 2013-June 2017

Institute of Automatic Control, RWTH Aachen, Germany

- Sensor fusion for Navigation and path planning of an Unmanned Aerial Vehicle
- Creating a C++ framework using inter-process-communication via UDP

Research Fellow, C++ Gazebo Simulink YARP Nov 2017-Aug 2018 Guide: Dr. Daniele Pucci, DIC lab Research center for Human-Robot Collaboration Italian Institute of Technology, Genova, Italy

- Implemented low level torque control framework for Humanoid robot, iCub
- Identified transfer function between Voltage and iCub's joints' torque

Graduate Engineer Trainee MS Excel TPM Hero Motocorp Ltd, Haridwar, India

July 2017-0ct 2017

World's largest two-wheeler company

- Managed TPM for machine quality, process inspection and resource planning
- Produced machined parts by programming and setting up the CNC machine

Intern, Mechanical Design Engineer CAD FEA
Grey Orange Robotics Pvt. Ltd, Gurugram, India

May 2016-July 2016
Warehouse Automation firm

- Designed suspension of a bi-directionally scalable material handling robot
- Optimized assembly using Design for Manufacturing and Assembly techniques

Projects

Robotic Exoskeleton Arm CAD FEA Matlab Guide: Dr. Sumit Basu, IIT Kanpur, India

Matlab Aug 2016-April 2017 dia Best Under graduate project at IIT Kanpur

- Exploited Pneumatic Air Muscles, based on Proportional pressure pneumatics
- Provided improved mobility to people in old age and Cerebral Palsy patients

Off-road Vehicles CAD FEA Matlab

Dec 2013-Jan 2016

Guide: Dr. Avinash Kumar Agarwal, IIT Kanpur For Event similar to FSAE & Baja SAE

- · Created/optimised mathematical models for multi link suspension systems
- Rated as one of top 5 teams for design from more than 45 national teams

Additional Information

- Led the Motorsports team at IIT Kanpur, with more than 25 members. Eventually being the Best-technical ready team in the competition
- · Interested in Abstract expressionism, Philosophy, Hiking, Running