

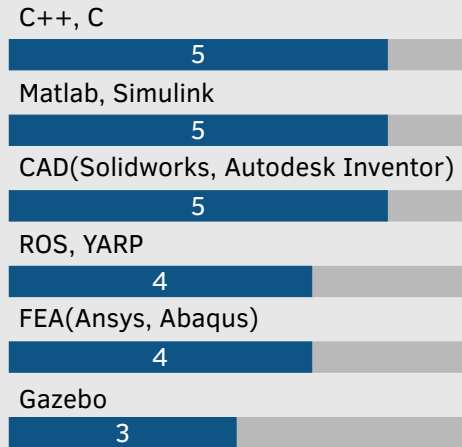


# Vibhor Aggarwal

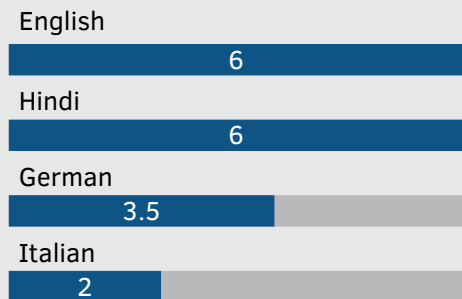
Master's Student, Automotive Engineering  
RWTH Aachen

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## Skills\*

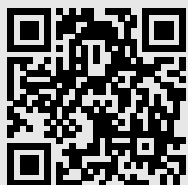


## Languages\*



\*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 Advanced Driver Assistance Systems, Automated Driving, and Electromobility

## Education

M.Sc, Automotive Engineering Sep 2018-Present#  
RWTH Aachen, Germany

B.Tech, Major: Mechanical Engineering July 2013-June 2017  
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 914th nationally among 1.4 million students in JEE 2013  
Gold Medal in National Mathematics Olympiad: AISMTA 2013

## Experience

Student research assistant C++ Simulink Germany May 2019-Mar 2020  
Institute of Automatic Control, RWTH Aachen, Germany

- Creating a C++ framework using inter-process-communication via UDP
- Data acquisition and time synchronisation among IMU and GNSS sensors

Research Fellow, C++ Gazebo Simulink YARP Italy 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 India July 2017-Oct 2017  
Hero Motocorp Ltd, Haridwar, India 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 India May 2016-July 2016  
Grey Orange Robotics Pvt. Ltd, Gurugram, India Warehouse Automation firm

- Designed suspension system of a material handling Automated Guided Vehicle
- Optimized assembly using Design for Manufacturing and Assembly techniques

## Projects

Object perception for Automated Driving Nov 2019-Present#  
Institute for Automotive Engineering, RWTH Aachen, Germany Mini-thesis

- Designing evaluation criteria for penalizing occlusions at urban intersections

Robotic Exoskeleton Arm CAD FEA Matlab Aug 2016-April 2017  
Guide: Dr. Sumit Basu, IIT Kanpur, India Best Under graduate project at IIT Kanpur

- Developed Pneumatic Air Muscles (Proportional pressure pneumatics)

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

## Additional Information

- Led the Motorsports team at IIT Kanpur, with more than 25 members.
- Interested in Abstract expressionism, Philosophy, Psychology, Hiking

# Last updated: May 3, 2020