

KASHISH GOYAL

Evanston, IL kashishgoyal2019@u.northwestern.edu, (312) 358-0541

EDUCATION

Northwestern University, Evanston, IL

Master of Science in Mechanical Engineering, Specializing in Robotics and Control

Anticipated Dec, 2018

Thapar University, Punjab, India

Bachelor of Engineering in Mechanical Engineering, GPA: 8.83/10.00

Jun, 2015

SKILLS

- ROS (Robot Operating System), V-Rep, Mathematica, Simulink (MATLAB), Arduino IDE based on C++
 - Python, C, Markdown
 - PTC Pro-Engineer/Creo Elements, DDS Solid Works, AutoCAD, KeyShot, CorelDraw
 - Aero-Modelling
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ACADEMIC PROJECTS

Force Control of Baxter, Northwestern University, IL

Jan, 2018 - Present

- Implementing 6 Axes Force/Torque sensor on Baxter (Rethink Robotics)
- Data acquisition through RS-485 serial
- Creating texture maps using force feedback

Starbax, Northwestern University, IL

Nov, 2017 – Dec, 2017

- Created a ROS package to use Baxter arm for making coffee
- Used color and AR tags to detect the poses of cups and Keurig followed by calculating movement using inverse kinematics while satisfying constraints

Robotic Manipulation, Northwestern University, IL

Nov, 2017 – Dec, 2017

- Simulated manipulation of KUKA youBot along a given trajectory in V-Rep
- Implemented closed loop PI control to correct initial and odometry error

Mecanum Wheel Application for Industrial Forklifts, Thapar University, India

Jan, 2015 – May, 2015

- Customized the design for industrial application with in-house manufacturing of the entire vehicle
 - Implemented worm drive to eliminate necessity of a braking system
 - Won the Best Project Award, leading a team of five
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WORK EXPERIENCE

VE Commercial Vehicles Ltd. (A joint venture company between The Volvo group and Eicher Motors Ltd.)

Deputy Manager

Jun, 2015 – Mar, 2017

- Supported strategy development for enhancing Brand parameters such as Advocacy, Positioning and Perception, initiated
 - Planned and conducted activities for improving market penetration through adding and sustaining corporate connections
 - Supervised field demo trials and product validations for Heavy Duty Truck segment throughout various construction and mining sites in India
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INTERNSHIP

Eicher Tractors Ltd. (A subsidiary of TAFE Motors and Tractors Ltd.)

Jan, 2014 – Jun, 2014

Project 1: Reduction of Defects in Post-painting Area through Process Study and Improvements

- Won "Best Kaizen Award" for pioneering device for diesel fuel system priming which saved INR 6 Lacs annually
 - Designed and implemented sling belt-based tackles for hood transport, that provided safe and quick operation
 - Reduced defect in Parts per Million (PPM from 290000 to 160000 within a period of three months and Defects per Unit (DPU) (at final stage) reduced from 0.5 to 0.25
 - Controlled excessive tube rejections in Tire Sub-Assembly Area through root cause analysis and implementation of relevant solution
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ADDITIONAL DETAILS

Leadership roles/Memberships

- Joint Secretary of Society of Mechanical Engineers at Thapar University, India 2014 – 2015
- Executive member of Robotics Society at Thapar University, India 2012 – 2013