

# Kartik Gupta

beingkartik.github.io

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## EDUCATION

### Oregon State University (OSU)

Master of Science(MS), Robotics

Advisor: Dr. Cindy Grimm; Project: 6D Object Detection from RGB images using Computer Graphics

Corvallis, OR

Sep'18 - Ongoing

### Indian Institute of Technology, Kanpur (IITK)

Bachelor of Technology(BTech); **GPA: 8.3/10**

Kanpur, India

Jul'12 - Jun'16

## TECHNICAL STRENGTHS

**Programming Languages** C, C++, MATLAB, Python, PostgreSQL

**Softwares & Libraries** ROS, OPENCV, RStudio, Arduino IDE, AutoDesk Inventor, MS Excel

## RELEVANT COURSES

**Academic** Probabilistic Mobile Robotics, Autonomous & MultiAgent Systems, Introduction to Robotics

**Coursera** Algorithms(I & II), Machine Learning, Robotics Specialisation(Perception, Mobility, Aerial)

## PROJECTS

### SLAM in Reduced Vision

Jan'16 - Apr'16

Guide: Prof. Gaurav Pandey, Department of Electrical Engineering, IITK

- Implemented Single Image Dehazing with ORB Slam to improve mapping in environment with fog and smoke.
- Tested results using TUM RGB-D fr1/desk dataset and achieved 4.5 times improvement in keyframe selection.

### Autonomous Ground Vehicle (AGV) Navigation in Orchards

May'15 - Jul'15

Guide: Dr. Vason Srinii, Executive Director, DataFlux Systems Inc., Berkeley, CA

- Designed an image processing pipeline to generate a navigation plan around a orchard using GoogleEarth image
- Implemented Canny Edge Detection, object classification and noise filtration and achieved 95% accuracy.

## ABU ROBOCON : ASIAN OCEANIAN ROBOTICS COMPETITION

### Robocon 2015 - Badminton Playing Robots

Oct'14 - Mar'15

- Automated robots using OPENCV for shuttle detection and extended Kalman Filter for trajectory prediction.
- *Results:* Accurately predicted the landing point of incoming shuttle in real time with an error margin of 5-7 cm.

### Robocon 2014 - Autonomous Pole Walking Robot

Oct'13 - Mar'14

- Developed a manual robot with holonomic motion and an autonomous robot capable of vertical pole traversal.
- *Results:* Secured 6<sup>th</sup> place in the National Competition and bagged the award for Best Innovative Design.

## PROFESSIONAL EXPERIENCE

### Data Scientist, OYO Rooms (India's Largest Hotel Chain)

India, Jul'17 - Jul'18

- Devised algorithm based on occupancy prediction & current booking trend for dynamic pricing of 2500+ hotels.
- Implemented K-means clustering and non linear regression to identify days of peak demand for each city.

### Business Analyst, Fastfox.com (Rental Service Provider)

India, Sep'16 - Jun'17

- Developed KPIs for online marketing campaigns based on cost, conversion and uniqueness of users acquired.
- Performed in-depth diagnostic studies and studied app usage patterns and user engagement levels.

## LEADERSHIP EXPERIENCE

- Head, Science and Technology Council, IIT Kanpur

Apr'15 - Mar'16

- Team Leader, ABU Robocon 2015 - IIT Kanpur

Oct'14 - Mar'15

## SCHOLASTIC ACHIEVEMENTS

- Attained **1964 rank** in IIT JEE (2012)(0.5 million students) & **269 rank** in AIEEE (2012)(1.3 million students)
- **Gold Medallist**, Delhi Public School, Vasant Kunj for consistent academic excellence from 2005-2012.