

Mayank Mittal

Graduate student, *ETH Zürich*

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EDUCATION

- 2021–present **ETH Zürich**, *Ph.D. in Mechanical Engineering*
Advisor: Prof. Marco Hutter
- 2018–2021 **ETH Zürich**, *M.Sc. in Robotics, Systems and Control*
Thesis: “Articulated Object Interaction in Unknown Scenes with Whole-Body Mobile Manipulation”
Advisors: Prof. Animesh Garg and Prof. Marco Hutter
- 2014–2018 **IIT Kanpur**, *B.Tech. in Electrical Engineering*
GPA: 9.0/10.0

EXPERIENCE





Professional

- Apr 2021–present **NVIDIA**, Zürich, Switzerland
Deep Learning R&D Engineer (Simulation, VR and Gaming)
- Sep 2019–Apr 2020 **NNAISENSE**, Lugano, Switzerland
Research Intern
Safe-learning and verification of controllers with Intelligent Automation team.


Academic

- June 2020–Mar 2021 **University of Toronto**, Toronto, Canada
Visiting Student Researcher with Prof. Animesh Garg
Deep RL for in-hand manipulation and articulated object interaction.
- Nov 2018–July 2019 **ETH Zürich**, Zürich, Switzerland
Research Assistant with Prof. Marco Hutter
Application of multi-agent RL to learn whole body control for arm-on-ANYmal.
- May 2017–Aug 2017 **University of Freiburg**, Freiburg im Breisgau, Germany
Visiting Student Researcher with Prof. Wolfram Burgard
Deep learning to detect landing sites for aerial vehicles in a hostile environments.
- Nov 2014–Jun 2018 **IIT Kanpur**, Kanpur, India
Undergraduate researcher

ARTICLES

-  [arXiv](#) **Articulated Object Interaction in Unknown Scenes with Whole-Body Mobile Manipulation**,
Mayank Mittal, David Hoeller, Farbod Farshidian, Marco Hutter, Animesh Garg
-  [arXiv](#) **Neural Lyapunov Model Predictive Control**,
Mayank Mittal[†], Marco Gallieri[†], Alessio Quaglino, Seyed S.M. Salehian, Jan Koutnik
- ICRA 2020 **Learning Camera Miscalibration Detection**,
 [arXiv](#) Andrei Cramariuc[†], Aleksandar Petrov[†], Rohit Suri, Mayank Mittal, Roland Siegwart, Cesar Cadena
- ISRR 2019 **Autonomous Vision-Based UAV for Urban Search and Rescue**,
 [arXiv](#) Mayank Mittal, Rohit Mohan, Wolfram Burgard, Abhinav Valada
- IROS 2018 **Vision-based Autonomous Landing in Catastrophe-Struck Environments**,
 [arXiv](#) Mayank Mittal[†], Abhinav Valada[†], Wolfram Burgard
Workshop on Vision-based Drones: What's Next?

TEACHING EXPERIENCE

- Jan–Apr '18 **Autonomous Navigation, AE640A**, Prof. Mangal Kothari, IIT Kanpur
 [website](#)
- Helped in developing the course syllabus and preparing the assignments
 - Guest lecturer on mathematical foundation for robotics, non-parametric filters for localization, system integration using ROS, and robot simulation

HONORS

- 2018 **Sri. Binay Kumar Sinha Award**, *IIT Kanpur*
Best undergraduate project that has industrial applicability and social relevance.
- 2018 **SIIC Student Innovation Award**, *IIT Kanpur*
Best socially-relevant project of global importance among graduating students.
- 2018 **Science and Technology Excellence Award**, *Students' Gymkhana, IIT Kanpur*
Exceptional performance in science and technology activities pursued through the Gymkhana.
- 2016, 2017 **Academic Excellence Award**, *IIT Kanpur*
Equivalent to Dean's List.
- 2017 **WISE Scholarship**, *German Academic Exchange Service (DAAD)*
Awarded to 192 students to conduct a research internship in Germany.
- 2016 **Abhyast Scholarship**, *The Boeing Company, USA & IIT Kanpur*
Awarded to 4 undergraduate students to design a robotic system for disaster management.
- 2012 **Kishore Vaigyanik Protsahan Yogna Fellowship (KVPY)**, *DST, Govt. of India*
Awarded to 245 students to encourage a research career in science.
- 2010 **National Talent Search Scholarship (NTS)**, *NCERT, Govt. of India*
Awarded to 1000 students to pursue education in STEM.

POSITIONS OF RESPONSIBILITY

- Jan 2016–Mar 2018 **Team Lead**, *AUV Team*, IIT Kanpur
Achieved 2nd place at national underwater robotics competition (NIOT-SAVe 2016). Organized outreach events to showcase the work and inculcate interest in underwater robotics.
- Mar 2016– Apr 2017 **Coordinator**, *Robotics Club*, IIT Kanpur
Coordinated various events, workshops, and competitions for robotics enthusiasts in the university.