

Mayank Mittal

Graduate student, *ETH Zürich*

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📄 [mayankm96.github.io](https://github.com/mayankm96)
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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, Prof. Marco Hutter
- 2014–2018 **IIT Kanpur**, *B.Tech. in Electrical Engineering*

EXPERIENCE

Professional



- July 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


- Apr 2021–June 2021 **ETH Zürich**, Zürich, Switzerland
Research Assistant with Prof. Marco Hutter
Collision-free MPC for whole-body control of legged mobile manipulators.
- 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](#) **Transferring Dexterous Manipulation from GPU Simulation to a Remote Real-World TriFinger**,
Arthur Allshire, Mayank Mittal, Varun Lodaya, Viktor Makoviyshuk, Denys Makoviichuk, Felix Widmaier, Manuel Wüthrich, Stefan Bauer, Ankur Handa, Animesh Garg
- 📄 [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.