Jens Lundell

Assistant Professor in Robotics and Machine Learning | Email: jens.lundell@utu.fi | Webpage
Department of Computing, University of Turku (UTU), Turku, Finland.

EDUCATION

- **Ph.D. Robotics and Autonomous Systems** 02/2022
  Aalto University, Espoo, Finland
  · Worked on robotic grasping with deep generative models.
  · Thesis title: Towards Robust 6-DoF Multi-Finger Grasping in Clutter with Explicit Scene Understanding.
  · Supervisor: Ville Kyrki.
- **M.Sc. Space Science and Technology / Space Robotics and Automation (Dual Degree)** 2016
  Aalto University, Finland & Luleå University of Technology, Sweden
- **B.Sc. Automation and Systems Technology** 2014
  Aalto University, Espoo, Finland
  · Specialization: Automation and Control Engineering, discrete mathematics.

WORK EXPERIENCE

- **Assistant Professor (Tenure Track) in Robotics and Machine Learning** 09/2025 – Now
  University of Turku (UTU), Turku, Finland
- **Postdoctoral Researcher** 05/2022 – 06/2025
  Royal Institute of Technology (KTH), Stockholm, Sweden
  · Worked on dexterous manipulation and diffusion models for grasp generation.
  · Supervisor: Danica Kragic.
- **Postdoctoral Researcher** 02/2022 – 04/2022
  Aalto University, Helsinki, Finland
  · Supervisor: Ville Kyrki.
- **Visiting Doctoral Researcher** 01/2020 – 03/2020
  University of Washington, Seattle, USA
  · Collaborated with NVIDIA Robotics Research on constrained grasp generation.
  · Supervisor: Dieter Fox.

SELECTED PUBLICATIONS

· Zehang Weng, Haofei Lu, Danica Kragic, and **Jens Lundell**. Dexdiffuser: Generating Dexterous Grasps with Diffusion Models. In: *IEEE Robotics and Automation Letters* (RA-L). 2024.
· **Jens Lundell**, Francesco Verdoja, and Ville Kyrki. Robust Grasp Planning Over Uncertain Shape Completions. In: *IEEE/RSJ International Conference on Intelligent Robots and Systems* (IROS). 2019.
· **Jens Lundell**, Francesco Verdoja, and Ville Kyrki. Beyond Top-Grasps Through Scene Completion. In: *IEEE International Conference on Robotics and Automation* (ICRA). 2020.
· **Jens Lundell**, Francesco Verdoja, and Ville Kyrki. DDGC: Generative Deep Dexterous Grasping in Clutter. In: *IEEE Robotics and Automation Letters* (RA-L). 2021.
· **Jens Lundell**, et al. Multi-FinGAN: Generative Coarse-to-Fine Sampling of Multi-Finger Grasps. In: *IEEE International Conference on Robotics and Automation* (ICRA). 2021.

A complete list of publications (25+ total, 500+ citations, h-index 13) is available on Google Scholar.

RESEARCH FUNDING AND GRANTS

- **Research Council of Finland Academy Research Fellowship** (pending) 2026 – 2031
  Applied funding: €1,000,000. Principal Investigator.

· Title: Beyond Kinematics: Cross-Embodiment End-Effector Adaptation in Vision-Language-Action Models.

- **WASP-Aalto Postdoctoral Fellow Project** 2023 – 2024
  Wallenberg AI, Autonomous Systems and Software Program
  · Funding covers two postdoctoral researchers, travel, and 15% of PIs' salaries.
  · Wrote the majority of the project plan. PIs: Prof. Ville Kyrki, Prof. Danica Kragic.
- **Aalto Elec Doctoral School Scholarship** 2019 – 2022
  Aalto University
  · Personal scholarship funding three years of doctoral studies.

TEACHING EXPERIENCE

Contributed to the following courses:

· Perception and Navigation in Mobile Robotics (course responsible, lectures) UTU, 2025
· Robotic Manipulation (teaching assistant, exercises) Aalto, 2019, 2021–2022
· Reinforcement Learning (teaching assistant) KTH, 2023

SUPERVISORY AND ORGANIZATIONAL ACTIVITY

Co-supervised the following students:

· Zehang Weng (Ph.D., defended 2025) KTH
· Alberta Longhini (Ph.D., defended 2025) KTH
· Haofei Lu (Ph.D. ongoing) KTH
· 11 Master's thesis students KTH, Aalto, CTU Prague
· 3 summer trainees

Co-organized the following events and activities:

· RPL Summer School 2024 (6-day event, 80+ researchers) KTH, 2024
· Mini-conference for 20 robotics Ph.D. students KTH & Örebro Univ., 2024

AWARDS AND HONOURS

· Outstanding Associate Editor Award, IEEE/RSJ IROS 2025
· Aalto University Doctoral Thesis Award (top 10% at School of Electrical Engineering) 2023
· Aalto Elec Doctoral School Scholarship 2019–2022

SELECTED INVITED TALKS

· CoRL 2024 Workshop on Mastering Robot Manipulation in a World of Abundant Data Munich (Germany), 2024

ACADEMIC SERVICE

· Associate Editor: ICRA, IROS 2025–2026
· Reviewer: CoRL, RSS, IEEE IROS, IEEE ICRA, IEEE T-RO, IEEE RA-L

SELECTED SOFTWARE

Developed the following open-source robotics software:

· [LINK] 6-DoF GraspNet: PyTorch implementation (developed during NVIDIA collaboration).
· [LINK] Constrained 6-DoF grasp sampling implementation and dataset.
· [LINK] MuJoCo simulation environment for prehensile pushing.
· [LINK] DDGC: Deep dexterous grasping in clutter.
· [LINK] Multi-FinGAN: Multi-finger grasp generation.
· [LINK] Point cloud segmentation algorithms in ROS.

Further software is available on GitHub.

SKILLS

- Languages: Swedish (native), English (Fluent), Finnish (satisfactory).
- Programming: Python (PyTorch, ROS), C++, LaTeX, Bash.