

Johan Edstedt

PHD STUDENT · COMPUTER VISION

Linköping University, Linköping, Sweden

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Education

Linköping University

PHD COMPUTER VISION

- Advisor: Prof. Michael Felsberg
- Co-Advisor: Associate Prof. Mårten Wadenbäck

Linköping, Sweden

2021/03 - present

Linköping University

MS ENGINEERING PHYSICS AND ELECTRICAL ENGINEERING

- MS Thesis: Towards Understanding Capsule Networks

Linköping, Sweden

2014/08 - 2020/06

Katholieke Universiteit Leuven

ERASMUS STUDIES

- Courses in Machine Learning / Big Data / AI

Leuven, Belgium

2018/08 - 2019/06

Professional Experience

2024-2024 **3D Computer Vision Intern**, Apple, Cupertino, U.S.

2023-2023 **Research Intern**, Ericsson Research, Stockholm, Sweden

2020-2021 **Research Assistant**, Linköping University, Linköping, Sweden

Publications

David Nordström, **Johan Edstedt**, Fredrik Kahl, Georg Bökman. *Stronger ViTs With Octic Equivariance*.
arXiv preprint arXiv:2505.15441.

Johan Edstedt, Georg Bökman, Mårten Wadenbäck, Michael Felsberg. *DaD: Distilled Reinforcement Learning for Diverse Keypoint Detection*. arXiv preprint arXiv:2503.07347.

Ludvig Dillén, Per-Erik Forssén, **Johan Edstedt**. *FACT: Multinomial Misalignment Classification for Point Cloud Registration*.
2025 Scandinavian Conference on Image Analysis (SCIA).

Johan Edstedt, Andre Mateus, Alberto Jaenal. *ColabSfM: Collaborative Structure-from-Motion by Point Cloud Registration*.
2025 IEEE Conference on Computer Vision and Pattern Recognition (CVPR).

Johan Edstedt. *Less Biased Noise Scale Estimation for Threshold-Robust RANSAC*. 2025 IEEE Conference on Computer Vision and Pattern Recognition Workshops (CVPRW).

Georg Bökman, **Johan Edstedt**, Michael Felsberg, Fredrik Kahl. *Affine steerers for structured keypoint description*. 2024 European Conference on Computer Vision (ECCV).

Georg Bökman, **Johan Edstedt**, Michael Felsberg, Fredrik Kahl. *Steerers: Steerers: A framework for rotation equivariant keypoint descriptors*. 2024 IEEE Conference on Computer Vision and Pattern Recognition (CVPR).

Johan Edstedt, Georg Bökman, Zhenjun Zhao. *DeDoDe v2: Analyzing and Improving the DeDoDe Keypoint Detector*. 2024 IEEE Conference on Computer Vision and Pattern Recognition Workshops (CVPRW).

Johan Edstedt, Qiyu Sun, Georg Bökman, Mårten Wadenbäck, Michael Felsberg. *RoMa: Robust Dense Feature Matching*.
2024 IEEE Conference on Computer Vision and Pattern Recognition (CVPR).

Johan Edstedt, Georg Bökman, Mårten Wadenbäck, Michael Felsberg. *DeDoDe: Detect Don't Describe—Describe Don't Detect for Local Feature Matching*. 2024 International Conference on 3D Vision (3DV) **(Oral)**.

Jie Zhao, **Johan Edstedt**, Michael Felsberg, Dong Wang, Huchuan Lu. *Leveraging the Power of Data Augmentation for Transformer-based Tracking*. 2024 IEEE/CVF Winter Conference on Applications of Computer Vision (WACV).

Yushan Zhang, **Johan Edstedt**, Bastian Wandt, Per-Erik Forssén, Maria Magnusson, Michael Felsberg. *GMSF: Global Matching Scene Flow*. 2023 Annual Conference on Neural Information Processing Systems (NeurIPS).

Johan Edstedt, Ioannis Athanasiadis, Mårten Wadenbäck, Michael Felsberg. *DKM: Dense Kernelized Matching for Geometry Estimation*. 2023 Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR) (**Highlight**).

Emil Brissman, Per-Erik Forssén, **Johan Edstedt**. *Camera Calibration Without Camera Access-A Robust Validation Technique for Extended PnP Methods*. 2023 Scandinavian Conference on Image Analysis (SCIA).

Joakim Johnander, **Johan Edstedt**, Michael Felsberg, Fahad Shahbaz Khan, Martin Danelljan. *Dense gaussian processes for few-shot segmentation*. 2022 European Conference on Computer Vision (ECCV).

Johan Edstedt, Amanda Berg, Michael Felsberg, Johan Karlsson, Francisca Benavente, Anette Novak, Gustav Grund Pihlgren. *VidHarm: A Clip Based Dataset for Harmful Content Detection*. 2022 26th International Conference on Pattern Recognition (ICPR).

Awards, Fellowships, & Grants

2023 AISG-SLA Visual Localisation Challenge — Winning Team, AI Singapore, SLA

\$ 20,000