

David Nordström

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EDUCATION

- Chalmers University of Technology** Gothenburg, Sweden
Ph.D. in Deep Learning Oct. 2024 – Oct. 2028
Description: Supervised by Fredrik Kahl and Georg Bökman. Teacher in Computer Vision (EEN020) and Deep Learning (SSY340).
- Seoul National University** Seoul, Korea
Exchange Student Feb. 2023 – Jun. 2023
Description: Visited during the last part of my Master's. Took courses in ML, Math, History, and Korean.
- University of California, Berkeley** Berkeley, USA
Exchange Student Jun. 2022 – Aug. 2022
Description: Joined as a structured exchange program and took courses in Mathematics (GPA 4.0/4.0).
- Chalmers University of Technology** Gothenburg, Sweden
M.Sc. in Engineering Mathematics Aug. 2021 – Jun. 2023
Description: Supervised by Fredrik Kahl and Georg Bökman. Teacher in Computer Vision (EEN020) and Deep Learning (SSY340).
- Chalmers University of Technology** Gothenburg, Sweden
B.Sc. in Industrial Engineering Aug. 2018 – Jun. 2021
Description: GPA 5.0/5.0 and graduated with another B.Sc. in Economics.

EXPERIENCE

- Chalmers University of Technology** Gothenburg, Sweden
Graduate Researcher Oct. 2024 – Present
 - 3D Vision:** Developed state-of-the-art feature extractor outperforming DINOv3 and CroCo v2 on reconstruction, matching, and pose estimation (MuM). Co-created RoMa v2, the current best dense matcher across many tasks.
 - Equivariance & Efficient ViTs:** Demonstrated that horizontal mirroring equivariance reduces FLOPs with no loss in performance. Extended to roto-reflections (5× FLOPs saved), improving DINOv2 and DeiT III. Built custom Triton kernels for high throughput.
- Kliva** Remote
AI Engineer Aug. 2024 – Present
 - SWE:** Built cashflow engine in Python, corresponding frontend in React, and Neo4j database connection.
 - Computer Vision:** Worked on extracting geometry from zoning plans and mapping them to global coordinates.
 - LLM:** Responsible for building both frontend and backend for a chat interface using an MCP server.
- Nrep** Stockholm, Sweden
Investment Analyst Aug. 2023 – Aug. 2024
 - Internship:** Joined as an intern at one of Northern Europe's largest Private Equity firms and received full-time offer.
 - Full-time:** Summarily, I was part of 12 private deals totaling EUR 200m and was primarily responsible for modeling.

SKILLS SUMMARY

- Languages:** Python, JavaScript, C++
- Frameworks:** PyTorch, Triton, CUDA, NodeJS, React, Next.js
- Tools:** Docker, Git, PostgreSQL

SELECTED PUBLICATIONS

- MuM: Multi-View Masked Image Modeling for 3D Vision:** D. Nordström*, J. Edstedt, F. Kahl, G. Bökman, 2025. arXiv: 2511.17309. Submitted 2025.
- RoMa v2: Harder Better Faster Denser Feature Matching:** J. Edstedt, D. Nordström*, Y. Zhang, G. Bökman, J. Astermark, V. Larsson, A. Heyden, F. Kahl, M. Wadenbäck, M. Felsberg, arXiv: 2511.15706. Submitted 2025.
- Octic Vision Transformers: Quicker ViTs Through Equivariance:** D. Nordström*, J. Edstedt, F. Kahl, G. Bökman, arXiv: 2505.15441. Submitted 2025.
- Flopping for FLOPs: Leveraging equivariance for computational efficiency:** G. Bökman, D. Nordström*, F. Kahl. Spotlight (2.6%) at ICML 2025.