

# David Nordström

Portfolio: [davnords.com](http://davnords.com)

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## EDUCATION

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- **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

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- **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 (5x 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

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

## SELECTED PUBLICATIONS

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- **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.