• PERSONAL INFORMATION

Family name, First name:	Wahlström, Niklas
Date of birth:	May 14, 1984
Nationality:	Swedish
URL for website:	https://nikwa.github.io/
Google Scholar:	https://scholar.google.se/citations?user=L8DhrjsAAAAJ

• ACADEMIC DEGREES

2023	Docent in Machine Learning
	Department of Information Technology, Uppsala University, Sweden
2015	Doctor of Philosophy in Automatic Control
	Department of Electrical Engineering, Linköping University, Sweden
	Supervisor: Prof. Fredrik Gustafsson
2013 I	Licentiate of Engineering in Automatic Control
	Department of Electrical Engineering, Linköping University, Sweden
	Supervisor: Prof. Fredrik Gustafsson
2010	Master of Science in Applied Physics and Electrical Engineering - Inter-
	national, with distinction, Linköping University, Sweden

• CURRENT POSITION

2024 – Associate Professor Department of Information Technology, Uppsala University, Sweden

• PREVIOUS POSITIONS

2019 - 2024 Assistant Professor

Department of Information Technology, Uppsala University, Sweden

2016–2019 Postdoctoral Researcher

Department of Information Technology, Uppsala University, Sweden

2010–2015 PhD student
Department of Electrical Engineering, Linköping University, Sweden
2006-2009 Teaching Assistant

Department of Mathematics, Linköping University, Sweden

• AWARDED GRANTS

- 2025-2026 Wallenberg AI, Autonomous Systems and Software Program (WASP) and Wallenberg Initiative Materials Science for Sustainability (WISE) WASP and WISE Pilot projects: Computer design of new class of green magnets for energy applications and next-generation computing. Total amount: 1 000 000 SEK, Principal investigator (for WASP) together with Vladislav Borisov (for WISE).
- 2024 Wallenberg AI, Autonomous Systems and Software Program (WASP) and Wallenberg Initiative Materials Science for Sustainability (WISE) WASP and WISE joint call for pre-projects: Vision-based AI for exploration of new solar cell materials. Total amount: 830 000 SEK, Principal investigator (for WASP) together with Jonathan Staaf Scragg (for WISE).
- 2022–2026 Swedish Research Council (VR) Starting grant within natural and engineering sciences. Project: *Physics-informed machine learning*. Total amount: 4 000 000 SEK, Principal investigator, Individual grant.
- 2020–2025 Wallenberg AI, Autonomous Systems and Software Program (WASP) Industrial PhD project: Modular neural networks and meta learning in 6G networks. Total amount: 3 300 000 SEK, Principal investigator, Joint application with Jalil Taghia (Ericsson AB).

• PUBLICATIONS (summary)

 \triangleright full list of publications

 \triangleright full list of teaching experience

1 book, 10 peer-reviewed journal papers, 22 peer-reviewed conference papers, 2 patents, h-index 19, citations: 2121.

• TEACHING EXPERIENCE

34(10) course instances in 17(4) different courses (in parenthesis as course responsible). Developed 4 courses and co-authored one course book.

• **REVIEWING ACTIVITIES**

- 2024 **Licentiate thesis opponent**, Chuan Huang, Department of Electrical Engineering, Linköping University, Sweden.
- 2024 Evaluation of Personal Research Grant The Israel Science Foundation
- 2023 **PhD thesis committee member**, Vaibhav Mishra, Department of Physics and Astronomy, Uppsala University.
- 2023 **PhD thesis committee member**, Phil Harrison, Department of Pharmaceutical Biosciences, Uppsala University.
- 2022 PhD thesis opponent, Krista Longi, Department of Computer Science, University of Helsinki, Finland.
- 2021 PhD thesis pre-examiner, Çağatay Yıldız, Department of Computer Science, Aalto University.
- 2021 **Examination committee, half-time seminar**, Phil Harrison, Department of Pharmaceutical Biosciences, Uppsala University.
- 2013– Reviewer Technometrics, Automatica, IEEE Transactions on Cognitive and Developmental Systems, ISIF Journal of Advances in Information Fusion, International Journal of Control, Digital Signal Processing, FUSION, IPS/NeurIPS 2015, 2017, ICML 2017, 2018, 2019, IROS 2020, MLSP 2020, L4DC 2021-2022, 2024, SYSID 2024, UAI 2024.

• BOARD PARTICIPATION

- 2025 **Director of Studies**, Division of Systems and Control, Uppsala University.
- 2023–2024 Board member, Educational Board of Engineering (TUN), Uppsala University.
- 2020–2024 **Board member**, Master's program in image analysis and machine learning, Uppsala University.
- 2021 **Board member**, Master's program in sociotechnical systems engineering, Uppsala University, co-opted member.
- 2020– **WASP faculty member** Swedish research initiative in artificial intelligence and autonomous systems.

• VISITS ABROAD

2014 spring Research visit, Imperial College, London

Supervisor: Dr. Marc Deisenroth, Department of Computing.

2007–2008 Exchange student, ETH Zürich, Switzerland Studied the third year of my undergraduate studies abroad.

• ENTREPRENEURIAL ACHIEVEMENTS

2017 - 2021 Co-founder and board member of Stylaero AB, Linköping

Together with former colleagues at Linköping University, an entrepreneur and an investor founded the company Stylaero AB providing the next evolution of humancomputer interaction. The core technology based on my research on 3D-positioning of magnetic objects and the corresponding patent [P1].

• SUPERVISION

Current PhD students (as main supervisor)

- 2025
— Isabella Rudengren (previously at Uppsala University). PhD student.
- 2024- \qquad Jennifer Andersson (previously at Uppsala University). PhD student.
- 2020– Philipp Pilar (previously at Vienna University of Technology, Austria)

Graduated PhD students (as co-supervisor)

- 2019–2024 Daniel Gedon, On Deep Learning for Low-Dimensional Representations
- 2017–2022 Carl Jidling, Tailoring Gaussian processes and large-scale optimisation
- 2016–2022 Carl Andersson, Deep probabilistic models for sequential and hierarchical data
- Graduated licentiate students (as main supervisor)
- 2020–2023 Philipp Pilar, Integrating Prior Knowledge into Machine Learning Models with Applications in Physics
- Graduated licentiate students (as co-supervisor)
- 2016–2019 Carl Andersson, Deep learning applied to system identification: A probabilistic perspective
- $2017-2019 \quad {\rm Carl \ Jidling, \ Tailoring \ Gaussian \ processes \ for \ tomographic \ reconstruction}$

MSc students

2012 - Supervisor or subject reviewer for 30 + MSc thesis projects.

• CAREER BREAKS

- 2022–2023 Paternity Leave (part-time (80%) September 2022–January 2023)
- 2021–2022 Paternity Leave (part-time (50%) November 2021–June 2022)
- 2019–2020 Paternity Leave (part-time (20%-30%) September 2019–June 2020)
- 2004 Military Service (10 months, full-time).