

Brief CV - Robert Jenssen (May 2025)

Personal information

First name, Surname:	Robert Jenssen		
Date of birth:	19 October 1974	Sex:	M
Nationality:	Norwegian		
Researcher unique identifier(s) (ORCID, ResearcherID, etc.):	https://scholar.google.com/citations?hl=en https://orcid.org/0000-0002-7496-8474 https://publons.com/researcher/1762439/robert-jenssen/		
Websites (personal, centre):	https://uit.no/ansatte/person?p_document_id=41060 http://visual-intelligence.no		

Education

2005	Ph.D. (Dr. Scient) UiT The Arctic University of Norway
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Positions - current and previous

I direct the deep learning research centre **Visual Intelligence** <http://visual-intelligence.no>, hosted by **UiT The Arctic University of Norway**, where I have the overall scientific responsibility, leading a large group of researchers from 11 consortium member institutions. I am affiliated with the **Pioneer Centre for AI, University of Copenhagen**, as an adjunct professor. I am also an adjunct professor at the **Norwegian Computing Center**. I have had long-term research stays at the **University of Florida** (2002-2003, 2004 spring, 2018 spring), at the **Technical University of Berlin** (2008-2009), and at the **Technical University of Denmark** (2012-2013). I am member of the **ELLIS Copenhagen Unit**. I lead large UiT Strategic projects (tech, health, social sciences, law). I am General Chair for NLDL <http://nldl.org>.

2020-	Director, Norwegian Centre for Research-based Innovation Visual Intelligence
2023-2025	Co-director of the Norwegian Centre of Excellence Integreat
2021-	Adjunct Professor, Pioneer Centre for AI , headed by Prof. Serge Belongie, U Copenhagen
2017-	Professor in Machine Learning, UiT The Arctic University of Norway
2015-	Adjunct Professor, Norwegian Computing Center, Oslo, Norway
2012-2015	Senior Researcher, Norwegian Centre for E-health Research, Norway
2009-2017	Associate Professor in Machine Learning, UiT The Arctic University of Norway
2006-2009	FRIPRO Personal Postdoc Fellowship funded by the <i>Research Council of Norway</i> (RCN)
2005-2006	Associate Professor, UiT The Arctic University of Norway

Project management experience

2020-2028	Director of <i>Visual Intelligence</i> , Norwegian Centre for Research-based Innovation funded by RCN ¹ #309439 ~300 MNOK. 11 partners (academia, industry, public institutions).
2023-2027	Research project/KnowEarth: Next generation Earth observation data analysis by integrating human knowledge and AI/WP-leader/RCN IKTPLUSS #337481 (12 MNOK)
2023-2025	Co-director of <i>Integreat</i> , Norwegian Centre of Excellence, RCN #332645 ~160 MNOK
2022-2026	Horizon Europe #101057400 /AI-Supported Im. Analysis/WP-leader http://aiceproject.eu
2021-2025	UiT Strategic Project/ <i>Consortium for Patient-Centered AI</i> /Co-PI/UiT (22.5 MNOK)
2020-2024	Research project/ <i>Interpretable deep learning from electronic health records</i> /PI/RCN IKTPLUSS #302022 (12 MNOK)
2021-2024	Industry PhD Project/ <i>Data driven pathways: augmenting clinical process design with decision support</i> /WP-leader/RCN #327520 and DIPS (3.2 MNOK)

¹ RCN: Research Council of Norway

2021-2024	Industry PhD Project/ <i>Vision-based AI for infrastructure inspection support</i> /WP-leader/RCN #321261 and eSmart Systems (3.2 MNOK)
2016-2019	Industry PhD Project/ <i>Machine Learning in Credit Risk Analysis</i> /PI/RCN #260205 and Santander Consumer Bank (3.2 MNOK)
2016-2019	Industry PhD Project/ <i>GridScan: Image and Sensor Data Analysis for RPAS-based Smart Electricity Grid Inspections</i> /PI/RCN #263894 and eSmart Systems (3.2 MNOK)
2018-2023	Research Innovation Project/ <i>enCognito: Energy Cognition with Machine Learning</i> /PI/Funded over Equinor's "Akademivtale" (~10 mill NOK)
2019-2021	H2020 Eurostars Project/ <i>PERISCOPE: Prediction of Postoperative Infections</i> /WP leader/EU H2020 Eurostars #E113519 (~1.8 MEUR)
2019-2024	Large Consortium: 180°-Targeting tumor microenvironment: Boosting PET-based diagnostics and therapies/ <i>WP4: Machine Learning</i> /WP co-leader/Tromsø Research Foundation and Bergen Research Foundation (total budget 70.8 MNOK)
2018-2022	UiT Strategic Project/ <i>Centre for Data-Driven Health Technology</i> /PI/UiT (~10 MNOK)
2018-2022	Research Project/ <i>Ubiquitous cognitive computer vision for marine services</i> /WP leader/RCN IKTPLUSS #270966 (15.9 MNOK)
2019-2022	Research Project/ <i>Quality Control of Surgical Outcomes by Analysis of Data from the Electronic Medical Record</i> /PI/Helse Nord #HST 1194-14 (2.2 MNOK)
2015-2019	Research Project/ <i>Next Generation Kernel-Based Machine Learning for Big Missing Data</i> /PI/RCN FRIPRO #239844 (8.3 MNOK)
2006-2009	Research Project/ <i>Inf Theory for Intelligent Data Anal.</i> /PI/RCN FRIPRO #171125 (~4 MNOK)

Supervision of students

I have supervised 17 PhD students to completion plus several postdocs and ~25 MSc. P.t (co-) supervising additionally 12 PhD students/postdocs, many across disciplines. Current Ph.D. students/postdocs (selection):

Suaiba Salahuddin, Eirik Østmo, Jørgen Lund, Magnus Størdal, Durgesh Singh, Harald Joakimsen, Lars Uebbing (UiT), Tianchao Li (UiT), Zhiyan Wu (UiO)
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I co-supervised Norway's first PhD candidate in Law (Mathias Hauglid) concerning AI Act and algorithmic bias in health decision support, defending in April 2024. I have hosted many international PhD students from e.g. Spain, Denmark, UK for long-term stays. Many of my (former) PhD students have stayed at top international universities and are now employed in industry or as faculty members.

Other relevant professional experiences

2025-	Scientific Advisory Board, Max-Planck Institute for Intelligent Systems, Tübingen/Stuttgart
2025-	Scientific Advisory Board, SeqoIA, French excellence centre in AI, funded in 2025
2025-	Evaluation and Strategic Advisory Committee, Digital Research Centre Denmark (DIREC)
2025-	Operations co-Chair for ICASSP 2029, Copenhagen
2024	Expert evaluator, Technical University of Denmark, BSc AI and Data
2022-	Int'l Academic Board, European University Alliance for Global Health https://eugloh.eu
2022-2029	Steering Group, Norwegian national AI school https://www.nora.ai/research-school
2012-	Built the UiT Machine Learning Research group from scratch from 2016.
2012-2017	Board Member, Dept. Physics and Technology, UiT The Arctic University of Norway
2020-	Elected ELLIS member (European Lab for Learning and Intelligent Systems)
2021	Academy of Finland. Expert evaluator AI
2016-	IAPR (Int'l Association for Pattern Recognition) Governing Board Member
2019-	IEEE Senior Member (member since 2002)
2017-2020	IEEE Signal Processing Society MLSP Technical Committee Member (also 2013-2016)
2010-	Associate Editor, Pattern Recognition Journal
2018-	General Chair of the annual Northern Lights Deep Learning Conference – http://nldl.org
2017	General Chair, Scandinavian Conference on Image Analysis (SCIA)

2014-	PhD opponent <u>28 times</u> : NTNU (2025), U Uppsala (2024), U South Denmark (2023*2), U Basque Country (2023), U Valencia (2020), U Luneburg (2020); U Linköping (2019); U Sorbonne (2019); U Aalborg (2019); TU Denmark (2023,2021,2020,2020,2019*2, 2018, 2017, 2014); UiS (2022, 2017, 2016); NTNU (2023,2016); UiO (2016); U Rey Juan Carlos (2015, 2014); Troyes U Tech (2014).
2014-2016	Steering Committee Belgian Research Council for the project “Re-Learn”
2016-2020	President of the Norwegian IAPR Society (NOBIM), board member 2010-2016
2014-	Evaluator for numerous prof. positions in Norway and abroad, e.g. for DTU, UiO, NTNU, etc
2019	Norwegian evaluation committee for promotion to full professor in Informatics
2001-	<i>Program Chair</i> for several conferences/workshops e.g. SCIA; <i>Session Chair</i> at numerous conferences (ICASSP, MLSP, ICPR, etc); <i>Reviewer</i> for all major ML journals and conferences.

10-year track record: Citations, Google scholar: Ca. 300 peer-reviewed journal/conference proceedings papers, h-index 45, total citations ~9900 (~6250 since 2020).

Regularly publishing papers in ICML, ICLR, CVPR, AAAI, TPAMI, TNNLS, Mach Learn, ECCV, NeurIPS, Medical Image Analysis, etc.

Selected publications (methodology papers + selected papers to show breadth)

Wickstrøm, Jenssen et al. (2025). REPEAT: Improving Uncertainty Estimation in Representation Learning Explainability. **AAAI** [Acceptance rate ~20%].

Yu, Jenssen et al. (2025). The conditional Cauchy-Schwarz Divergence with Applications to Time-Series and Sequential Decision Making. **IEEE TPAMI**. [Top journal, impact factor 23.6].

Leth-Møller, Jenssen et al. (2024) Finding NEM-U: Explaining unsupervised representation learning through neural network generated explanation masks. **ICML** [Acceptance rate < 30%].

Jenssen (2024). MAP IT to Visualize Representations. **ICLR** [Acceptance rate ~30%].

Trosten, Jenssen et al. (2023). On the Effects of Self-supervision and Contrastive Alignment in Deep Multi-view Clustering. **CVPR**. [Spotlight paper, top 2.5% of submissions; Acceptance rate ~25%].

Gautam, Jenssen et al. (2022). ProtoVAE: A Trustworthy Self-Explainable Prototypical Variational Model. **NeurIPS**. [Acceptance rate ~25%].

Wickstrøm, Jenssen et al. (2020). Uncertainty and Interpretability in Convolutional Neural Networks for Semantic Segmentation of Colorectal Polyps. **Medical Image Analysis** 60, 101619. [Cited ~165 times].

Nguyen, Jenssen et al. (2018). Automatic Autonomous Vision-based Power Line Inspection: A Review of Current Status and the Potential Role of Deep Learning. **Int’l Journal of Electrical Power & Energy Systems** 99, 107-120. [Cited > 515 times. Commercial monitoring system developed subsequently].

Mikalsen, Jenssen et al. (2017). Using Anchors from Free Text in Electronic Health Records to Diagnose Postoperative Delirium. **Computer Methods and Programs in Biomedicine** 152, 105-114. [Winner of the American Medical Informatics (IMIA) Best Paper Award].

Jenssen (2010). Kernel Entropy Component Analysis. **IEEE TPAMI**. [Featured paper, cited ~400 times].

Keynote talks at internationally established conferences, workshops, graduate schools (selection):

- *XAI for representation learning*: Swedish Image Analysis Conference, 2024
- *Information theory meets signal processing*: ICASSP tutorial, 2023
- *Representation learning interpretability*: Deep learning: Theory, algorithms, and applications, 2023
- *Self-supervised learning for medical image analysis*: Workshop on self-supervised learning, Aalborg, 2022
- *Visual Intelligence for medial image analysis*, Colour and visual computing symposium, 2022
- *Advances in deep learning towards innovations*, Norwegian AI symposium, 2022
- *Advances in basic and applied deep learning*, Bristol Interactive AI Summer School, 2021
- *A new few-shot learning network*: Swedish Symposium on Deep Learning, 2021
- *Machine learning for patient risk analysis*: Nordic Conf. on Patient-oriented Products, 2021
- *AI and democracy*: The Norwegian Academy of Science and Letters, 2021

- *Singular problems in healthcare*: ECAI 2020 Workshop, Santiago de Compostela, Spain, 2020
 - *Detecting risk patients*: Norwegian Association of Hospital Pharmacists annual conf, Oslo, 2020
 - *Visual intelligence in healthcare*: “Normkonferansen”, Oslo, 2020
 - *ML to predict postoperative adverse events*: Norwegian NSF e-health conference, Oslo, 2020
 - *Deep learning for earth observation*: MACLEAN workshop at ECML, Wurzburg, 2019
 - Panelist “New Horizons of Mathematics in Deep Learning”, Zuse Institute Berlin, 2019
 - *Deep clustering*: BMS Mathematics of deep learning school, Berlin, 2019.
 - *Information plane theory*: BMS Mathematics of deep learning school, Berlin, 2019
 - *Deep learning for power line inspection*: BMS Mathematics of deep learning school, Berlin, 2019
 - *Time series cluster kernel*: KERMES - Kernel methods for Structured Data Workshop, Madrid, 2019
 - *AI in healthcare*: ICT for Life and Health Conference, Helse Midt, Trondheim, 2019
- And many more prior. -

Numerous invited talks at renowned international universities

University College London; Massachusetts Institute of Technology; EURECOM; University of Copenhagen; Technical University of Denmark; University of Florida; Technical University of Berlin; University of Valencia; Rey Juan Carlos University; Aalborg University; University of Southern Brittany, etc.

Organization of international conferences

I am the General Chair for the annual international Northern Lights Deep Learning Conference – NLDL <http://nldl.org>.

NLDL is the main Norwegian conference in AI organized for 5 full days every January in Tromsø. Papers are published in Proceedings of Machine Learning Research (PMLR). The NLDL winter school, diversity events and industry events draw hundreds of participants from 25+ different countries.

I have been General Chair for SCIA 2017 and program Chair for SCIA in the past. I have been in the organizing committee for the MLSP (Machine Learning for Signal Processing) track at ICASSP, as well as in the organizing committee for the IEEE MLSP annual workshop as an IEEE MLSP TC Member for 8 years. Also organising workshops at top conferences, e.g. IT4DL: inf theory for deep learning at AAI-22 <https://www.it4dl.org>, special session at ICASSP 2024, tutorial at ICASSP 2023.

Research awards/honours

2024	Best Paper Award, Pattern Recognition Letters
2023	Dissertation Award 2023, Norwegian Artificial Intelligence Society (Trosten, co-supervisor)
2022	Best Paper Award, Colour and Visual Computing Symposium
2018	Best Paper Award Int’l Medical Informatics Association (IMIA)
2018	Outstanding Lecturer Award, Faculty of Science and Technology, UiT
2017	Best Student Paper Award, Scand. Conf. on Image Analysis (Kampffmeyer, supervisor)
2013	Winner of the IEEE GRS Society Letters Prize Paper Award 2013
2010	Featured Paper, IEEE Transactions on Pattern Analysis and Machine Intelligence
2007	Received the University of Tromsø Young Investigator Award (a bi-annual award).
2005	Received the ICASSP Outstanding Student Paper Award
2003	Pattern Recognition Journal Best Paper Award, Honourable Mention

Major contributions to the early careers of excellent researchers

I have mentored young researchers on excellent trajectories in their early careers (selection):

- Assoc. Prof. **Cristina Soguero Ruiz** (35 yrs), Rey Juan Carlos Univ, Madrid. I hosted her for several long-term stays at UiT. Won the **Orange Foundation best PhD thesis award** in Spain for her work, which I supervised.
- Assoc. Prof. **Shujian Yu** (32 yrs), PhD Univ Florida, now VU Amsterdam. During my stay at U Florida we started to collaborate and Yu won in 2021 the **Int’l Neur Netw Society Young Investigator Award**.