Curriculum Vitae

Personal Data

Full name: Kim Steenstrup Pedersen
Born: May 15th 1973, Roskilde, Denmark
Civil status: Married and father of 3 children

Nationality: Danish

Home address Volosvej 4, 2300 København S

Current employment: Professor, Dept. of Computer Science (DIKU) & Natural History Museum of Denmark (NHMD),

University of Copenhagen

Home page: https://kimstp.github.io/

Educational Background

03/2003 Ph.D. from the Department of Computer Science (DIKU), University of Copenhagen, Denmark.
02-07/2001 Research visit with Prof. David Mumford at Div. of Applied Math., Brown University, USA.
09/1999 M.Sc. in Computer Science, the Department of Computer Science, University of Copenhagen.
1997 B.Sc. in Computer Science, the Department of Computer Science, University of Copenhagen.

Employment

08/2021 – present	Professor, Department of Computer Science (DIKU) & Natural History Museum of Denmark
	(NHMD), University of Copenhagen, Denmark
08/2021 - present	Curator of the digital collections, Natural History Museum of Denmark, University of Copenhagen,
	Denmark
03/2012 - present	Co-founder, co-owner and CTO of DigiCorpus ApS, http://www.digicorpus.com
03/2012 – present	Co-founder, co-owner and CEO of Schroll Pedersen Holding ApS
01/2007 - 07/2021	Associate Professor, Department of Computer Science, University of Copenhagen, Denmark
04/2003 - 12/2006	Assistant Professor, Department of Innovation, IT University of Copenhagen, Denmark
01/2003 - 03/2003	Assistant Research Professor under the SNF grant "Computing Natural Shape" at the Department
	of Computer Science, University of Copenhagen, Denmark
01/2000 - 12/2002	Ph.D. student at Department of Computer Science, University of Copenhagen, Denmark
02/1999 - 09/1999	Part time research programmer within medical image analysis at Pronosco A/S, Denmark
01/1997 - 01/1999	Part time software developer and project manager at ELK ApS, Denmark

Affiliations and Membership of Scientific Societies

01/2023 - present Science & Society research section, Natural History Museum of Denmark (NHMD), University of

Copenhagen, Denmark

2022 – present Affiliated member, Pioneer Center for Artificial Intelligence, Denmark

08/2021 – present GBIF Head of Delegation for Denmark

2018 – present Section for Image Analysis, Computational Modelling and Geometry (IMAGE), Department of

Computer Science (DIKU), University of Copenhagen

01/2007 - 2018 Image Section, Department of Computer Science (DIKU), University of Copenhagen

Periods of leave

11/2015 - 01/2016 3 month paternity leave 11/2008 - 01/2009 3 month paternity leave 08/2004 - 10/2004 3 month paternity leave

10/1999 – 12/1999 – 3 month military service, Beredskabscenter Bornholm, Allinge

Managerial & administrative experience

02/2025 – present	Project leader, Danish System of Scientific Collections – DaSSCo, Natural History Museum of
	Denmark, University of Copenhagen
08/2021 – present	Head of Section for Digital Collections & Archive, Natural History Museum of Denmark, University
	of Copenhagen
2018 - 08/2021	Head of Section, Section for Image Analysis, Computational Modelling and Geometry (IMAGE),
	Department of Computer Science, University of Copenhagen
2016 - 2018	Head of Section, Image Section, Department of Computer Science, University of Copenhagen
2012 - present	CTO of DigiCorpus ApS, http://www.digicorpus.com
2012 - present	CEO of Schroll Pedersen Holding ApS
2011	Leadership Development for Heads of Research Groups, University of Copenhagen, Denmark
2009 - 2012	Deputy Head of Department for Teaching, Department of Computer Science, University of Copen-
	hagen
2008 - 2009	Member of the teaching committee at Department of Computer Science, University of Copenhagen
2003 - 2006	Elected VIP representative in the study programme committee (fagudvalg) for the Media Tech-
	nology and Games (MTG) study programme at IT University of Copenhagen (ITU), Denmark
2003 - 2006	Member of the MTG interim committee for establishing the study programme at IT University of
	Copenhagen (ITU), Denmark

Research project funding

- Natur Arv3D: Et pilotprojekt til digitalisering i 3D af hvirveldyrssamlingen på SNM (**Co-PI**), Augustinus foundation **DKK 9.866.291**, 01/2025 - 12/2027
- Rapid and Objective Grain Quality Monitoring Using Deep Learning and Hyperspectral Imaging (**PI**), Industrial PhD with FOSS Analytical A/S funded by Innovation Fund Denmark, **DKK 2.000.000**, 06/2022 06/2025
- ClimbAlong (PI), InnoBooster project with NorthTech ApS funded by Innovation Fund Denmark, DKK 319.005, 06/2022 06/2025
- DaSSCo: Danish System of Scientific Collections (PI), a national research infrastructure funded by Uddannelses- og Forskningsstyrelsen, DKK 29.550.000, 09/2021 08/2026. https://www.dassco.dk
- Expanding the Tree of Life through a digital view of museum collections PHYLORAMA (**PI**), funded by UCPH Data+ (50%) and several external sources, **DKK 4.894.916**, 10/2020 06/2024
- Deep Learning and Automation of Imaging-Based Quality of Seeds and Grains (Co-PI, DIREC Bridge project with DTU Compute, Foss Analytical A/S for 1 Ph.D. scholarship, DKK 2.720.000, 02/2021 02/2024)
- ClimbAlong (PI), industrial collaboration with NorthTech ApS funded by AI Denmark, DKK 123.000, 2021)
- External consultancy FaunaPhotonics A/S (PI, funded by the company, DKK 158.750, 2019 2021)
- 3 yr. Postdoc in Big Data and Machine Learning in Food Science and Food Processing Technology (**PI**), funded by DIKU, **DKK 600.000**, Dept. of FOOD, **DKK 600.000**, and Foss Analytical A/S, **DKK 600.000**, 2019 02/2022
- Railroad assets mapping (Co-PI), Innovation Fond DK Industrial phd with COWI A/S, DKK 2.000.000, 01/2017 04/2020
- InnoBooster consultancy for Bilagscan (Co-PI, Innovation Fond DK, DKK 100.000, 2017)
- Surveying the sky using machine learning SkyML (Co-PI, DFF FNU (12-125149) project 2 grant, DKK 4.963.991, 2013 2016)
- InnoBooster consultancy for Snaplytics (Co-PI, Innovation Fond DK, DKK 105.000, 2016)
- Droner til monitorering af flerårigt ukrudt i korn (**Co-PI**, Miljøstyrelsen, Miljøministeriet, **DKK 403.401**, 2013 2016)
- Human Motion Imitation (HUMIM) (**PI**, internally funded project 2 Phd scholarship (SCIENCE, UCPH), **DKK** 3.000.000, 2009 2012)
- VISIONTRAIN (Co-PI, EU funded Marie Curie Training Network with 11 international partners, DKK 2.530.127, 2005 2009)
- Natural Image Sequence Analysis (**Co-PI**, DFF FNU framework grant no. 272-05-0256, **DKK 300.000**, 2006 2008)
- French Embassy in Denmark grant for collaboration with P. Pérez, E. Mémin, and Francois Lauze (Co-PI, DKK 18.000, 2008 2009)

Selected international and national collaborations (present and past):

Alexey Solodovnikov, the Natural History Museum of Denmark, University of Copenhagen.

Francois Lauze, Department of Computer Science, University of Copenhagen.

Sergei Tarasov, LUOMUS, University of Helsinki, Finland.

Jean-Denis Durou, IRIT, University of Toulouse, France

Jean Mélou, IRIT, University of Toulouse, France

Xiao Hu, DTU Space, The Technical University of Denmark, Denmark

Søren Balling Engelsen, Dept. of Food, University of Copenhagen

Birthe Møller Jespersen, Dept. of Food, University of Copenhagen

Klavs Martin Sørensen, Dept. of Food, University of Copenhagen & Foss Analytical A/S.

Erik Shou Dreier, Foss Analytical A/S.

David R. Nash, Department of Biology, University of Copenhagen.

Anders Drud Jordan, the Natural History Museum of Denmark, University of Copenhagen.

Lars Nørgaard, Foss Analytical A/S.

Lars Kai Hansen, DTU Compute, DTU, Denmark

Wouter M. Kouw, TU Eindhoven, Holland.

Jesper Rasmussen, Dept. of Plant and Environmental Sciences, University of Copenhagen.

Fabian Gieseke, Westfälische Wilhelms-Universität Münster, Germany.

Anders Dahl, Technical University of Denmark.

Marco Loog, Delft University of Technology, Holland.

Anne Cuzol, Vannes, France.

Remco Duits, Technical University of Eindhoven, Holland.

Ann B. Lee, Carnegie Mellon University, USA.

David Mumford, Brown University, USA.

Ph.D. / Post Doc. Supervision and student project production

Currently supervising 1 PhD students and 1 Post Doc. researcher.

Previously supervised 8 Ph.D. student and 6 Post Doc. researchers.

Chairman / Member of 16 PhD assessment committees (both national and international).

Organized and taught on 8 different Ph.D. level courses and seminars.

Have supervised and completed 82 Master theses (30 - 60 ECTS) and 114 BSc theses and other student projects (7.5 - 20 ECTS).

Honourable Research Services, Awards, Conference and workshop organization

- Program committee chair and editor of Scandinavian Conference on Image Analysis (SCIA) in Copenhagen, Denmark, 2015.
- Best paper award at the 3DPVT 2010 conference for the paper "On Recall Rate of Interest Point Detectors". Henrik Aanæs, Anders Dahl and Kim Steenstrup Pedersen.
- Organized workshops in the HUMIM project, 2009–2012.
- Organising program committee member and editor of Scandinavian Conference on Image Analysis (SCIA) in Aalborg, Denmark, 2007.
- Organized workshops in the NISA project, 2006 2008.
- Program committee member of the 4th International Scale-Space Conference, Scotland, 2003.
- Reviewer at international conferences and journals: International Journal of Computer Vision, IEEE Transaction on Pattern Analysis and Machine Intelligence, IEEE Transaction on Image Processing, Journal of Mathematical Imaging and Vision, Electronic Letters on Computer Vision and Image Analysis, ICCV, CVPR, ECCV, SSVM, MICCAI, SCIA.

Key research topics

My primary research area is computer vision which includes topics from image analysis and machine learning, in particular deep learning. I focus mainly on problems in fine grained classification / recognition and regression based on multimodal input, object detection and recognition, and tracking and motion models. I have made contributions to the theoretical foundations of computer vision, including machine learning for low-level vision, image features, scale space theory, and articulated tracking of human motion. I am currently working with methodological development and applications of computer vision within digitisation of natural history collections, biodiversity monitoring, agriculture and precision farming, food sciences, and industrial applications.

Publications

Total number of publications in; international peer reviewed journals (20), peer reviewed conferences and workshops (38), other publications including special issues, proceeding books, and Ph.D. thesis (26).

 $Google\ Scholar\ profile:\ \texttt{https://scholar.google.dk/citations?user=RzH2vKQAAAAJ}$

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