#### Curriculum Vitae

#### Personal Data

Full name: Kim Steenstrup Pedersen
Born: May 15th 1973, Roskilde, Denmark
Civil status: Married and farther 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 in medical image analysis at Danish company Pronosco A/S
01/1997 - 01/1999	Part time software developer and project manager at Danish company ELK, ApS

# Affiliations and Membership of Scientific Societies

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

08/2021 – present	Head of Section for Digital Collections & Archives, Natural History Museum of Denmark, University of
	Copenhagen
2018 - 08/2021	Head of Section, Section for Image Analysis, Computational Modelling and Geometry (IMAGE), Depart-
	ment 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 Copenhagen
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 Technology
	and Games (MTG) study programme (ITU)
2003 - 2006	Member of the MTG interim committee for establishing the study programme (ITU)

# Research project funding

- 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**, 2022)
- 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 present)
- 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, expected 02/2021 02/2023)
- 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 ( $\mathbf{Co}$ - $\mathbf{PI}$ , DFF FNU framework grant no. 272-05-0256,  $\mathbf{DKK}$  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):

Affiliated member of the Pioneer Center for Artificial Intelligence, Denmark (2022 -).

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

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

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

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

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

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

Erik Shou Dreier, Foss Analytical A/S.

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 3 PhD students.

Previously supervised 6 Ph.D. student and 5 Post Doc. researchers.

Chairman / Member of 15 PhD assessment committees (both national and international).

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

Have supervised and completed 74 Master theses (30 - 60 ECTS) and 110 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), Copenhagen, 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), Aalborg, 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 interests include topics from computer vision, image analysis and machine learning, especially object recognition and detection, tracking and motion models, stochastic image models, and natural image statistics. I have made contributions to the theoretical foundations of low-level vision, including applications of machine learning to low-level vision, scale space theory, articulated tracking of human motion, and image features and applications thereof. I am currently working with applications of computer vision within natural history collections, biodiversity monitoring, agriculture and precision farming, astronomy, and industrial applications.

#### **Publications**

Total number of publications in; international peer reviewed journals (16), peer reviewed conferences and workshops (37), other publications including special issues, proceeding books, and Ph.D. thesis (22).

Google Scholar profile: https://scholar.google.dk/citations?user=RzH2vKQAAAAJ

ORCID http://orcid.org/0000-0003-3713-0960