

Computer Vision Researcher

Roles: Researcher, Supervisor, Lecturer, Invited speaker, Engineer.

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My work is in the field of Computer Vision and Deep Learning, where I have extensive experience with video and image analysis, specifically scale-invariance, geometric priors, motion analysis and regression problems.

My current focus is medical image analysis for cancer detection and segmentation.

EDUCATION

PhD	Computer Vision
Institution	University van Amsterdam Amsterdam, NL
Period	2011 - 2016
THESIS TITLE	Continuous Learning in Computer Vision
Focus	Motion prediction, object localization, video representation learning
\mathbf{MSc}	Artificial Intelligence
Institution	University van Amsterdam Amsterdam, NL
Period /Avg. Grade	2009 - 2011 8.31 (out of 10)
Focus	Machine Learning, Computer Vision, Neural Networks, Game Theory.
\mathbf{BSc}	Computer Science
Institution	University of Bucharest, Faculty of Mathematics and Computer Science, Bucharest, RO
Period /Avg. grade	$2005 - 2008 \mid 9.40 \text{ (out of } 10)$
Focus	Algorithms and data structures, Object oriented programming, Formal methods.

AI for oncology, NKI, Amsterdam, NL

February 2022 — Present

WORK EXPERIENCE

PostDoc

PERIOD

Job Description	Medical imaging for cancer detection and segmentation.
Assistant Professor (Tenure Track)	Vision Lab, Delft University of Technology, Delft, NL Focus on Deep Learning scale-invariance and efficiency
Period	July 2020 — February 2022
$\mathbf{PostDoc}$	Vision Lab, Delft University of Technology, Delft, NL
Period	July 2018 — July 2020
Job Description	Geophysical seismic image analysis with the use of Deep Learning.
$\mathbf{PostDoc}$	Vision Lab, Delft University of Technology, Delft, NL
Period	July 2016 — July 2018
Job Description	Working on the "Technology in Motion" project with the Leiden University Medical Center towards diagnosing and treatment of motor diseases. Project link: https://tim.lumc.nl
R&D Engineer	Layar/Blippar, Amsterdam, NL
Period	January — June 2016
Job Description	Adding state-of-the-art Deep Learning methods for large-scale image retrieval, feature match-
	ing and binarization algorithms.

KEY PUBLICATIONS

[&]quot;Resolution learning in deep convolutional networks using scale-space theory", SL Pintea, N Tomen, SF Goes, M Loog, JC van Gemert, Transactions on Image Processing (TIP), 2021.

[&]quot;Deep continuous networks", N
 Tomen, SL Pintea, JC Van Gemert", International Conference on Machine Learning (ICML), 2021

[&]quot;No frame left behind: Full Video Action Recognition", X Liu, SL Pintea, FK Nejadasl, O Booij, JC van Gemert. Computer Vision and Pattern Recognition (CVPR), 2020.

"Déjà Vu: Motion Prediction in Static Images.", SL Pintea, JC van Gemert, AWM Smeulders, European Conference on Computer Vision, 2014, (http://github.com/SilviaLauraPintea/DejaVu)

 $\textbf{Complete list of publications:} \ https://scholar.google.nl/citations?user=shTkx9EAAAAJ\&hl=en$

Additional Information

Reviewer	CVPR, ECCV/ICCV, BMVC, ICPR, ICML, NeurIPS, TIP, IJCV
Conference participation	International participation: CVPR 2021, ICCV 2021, ECCV 2020, ICIP 2018, ICIP 2016, workshop ECCV 2016, ECCV 2014
Invited speaker	Local participation: NCCV 2019, NCCV 2018, ICT.Open 2016, ICT.Open 2012 NVPHBV 2017, Nuctech meeting Delft, Delft-Leiden Deep Learning Seminars 2019.
Invited lecturer	Deep Learning MSc course TUDelft, 2019
Lecturer	BSc Image Processing course, MSc Computer Vision course at TUDelft
Teaching Assistant	BSc Short Course on Pattern Recognition, MSc Computer Vision course.
MSC SUPERVISOR	Tobias Stahl, Yichao Zhang, Chengqiu Zhang, Xilin Li, Yue Liu, Omar Hommos, Xiaoming Wen, Jian Zheng, Ziyu Bao, Yordan Dimitrov, Nikhil Saldanha.
PhD supervisor	Vedran Vukotic, Abolfazi Nadi, Yancong Lin, Xin Liu.
Award	Outstanding Reviewer award CVPR 2021, ICCV 2021; Best paper award for the Workshop on Hands, ECCV 2018.
Languages & Tools	Python, PyTorch, TensorFlow, C/C++, Caffe, Torch, PHP, Java, OpenCV, Dlib, Shogun, LibSVM, VlFeat, Yael, Cuda-Convnet, Matlab.
References	Dr. Arnold Smeulders (A.W.M.Smeulders@uva.nl) Dr. Marco Loog (M.Loog@tudelft.nl) Dr. Jan van Gemert (J[dot]C[dot]vanGemert[at]tudelft[dot]nl)