

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 on efficient and effective video analysis.

EDUCATION

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

WORK EXPERIENCE

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Senior PostDoc	Division of Image Processing (LKEB), LUMC, Leiden, NL
Job Description	Efficient video analysis for surgery videos.
Period	May 2022 — Present
Assistant Professor (TT)	Vision Lab, Delft University of Technology (TUDelft), Delft, NL
Job Description	Focus on Deep Learning scale-invariance and efficiency
Period	July 2020 — February 2022
$\operatorname{PostDoc}$	Vision Lab, Delft University of Technology (TUDelft), Delft, NL
Job Description	Geophysical seismic image analysis with the use of Deep Learning.
Period	July 2018 - July 2020
$\operatorname{PostDoc}$	Vision Lab, Delft University of Technology (TUDelft), Delft, NL
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
Period	July 2016 - July 2018
R&D Engineer	Layar/Blippar, Amsterdam, NL
Job Description	Adding state-of-the-art Deep Learning methods for large-scale image retrieval, feature matching and binarization algorithms.
Period	January — June 2016

KEY PUBLICATIONS

"Equal Bits: Enforcing Equally Distributed Binary Network Weights", Y Li, SL Pintea, JC van Gemert, Association for the Advancement of Artificial Intelligence (AAAI) 2022.

"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.

"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), 2021.

"Déjà Vu: Motion Prediction in Static Images.", SL Pintea, JC van Gemert, AWM Smeulders, European Conference on Computer Vision (ECCV), 2014.

Complete list of publications: https://scholar.google.nl/citations?user=shTkx9EAAAAJ&hl=en

Reviewer CVPR, ECCV/ICCV, BMVC, ICPR, ICML, NeurIPS, TIP, IJCV

International participation: CVPR 2021, ICCV 2021, ECCV 2020, ICIP 2018, CONFERENCE PARTICIPATION

ICIP 2016, workshop ECCV 2016, ECCV 2014

Local participation: NCCV 2019, NCCV 2018, ICT.Open 2016, ICT.Open 2012 INVITED SPEAKER

NVPHBV 2017, Nuctech meeting Delft, Delft-Leiden Deep Learning Seminars

2019.

Deep Learning MSc course TUDelft, 2019 Invited lecturer

> LECTURER BSc Image Processing course, MSc Computer Vision course at TUDelft

TEACHING ASSISTANT BSc Short Course on Pattern Recognition, MSc Computer Vision course.

Tobias Stahl, Yichao Zhang, Chengqiu Zhang, Xilin Li, Yue Liu, Omar Hommos, MSC SUPERVISOR

Xiaoming Wen, Jian Zheng, Ziyu Bao, Yordan Dimitrov, Nikhil Saldanha, Ziyu

Bao.

PhD supervisor Vedran Vukotic, Abolfazi Nadi, Yancong Lin, Xin Liu.

> Outstanding Reviewer award CVPR 2022-2021, ICCV 2021; AWARD

> > 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, Matlab.

Dr. Ir. Femke Vossepoel (F[dot]C[dot]Vossepoel[at]tudelft[dot]nl) References

Dr. Marco Loog (M.Loog@tudelft.nl)

Dr. Jan van Gemert (J[dot]C[dot]vanGemert[at]tudelft[dot]nl)