

Computer Vision Researcher

NATIONALITY: Dutch | PRONOUNS: she/her/hers.

Roles: Researcher, adviser, lecturer, invited speaker, computer scientist.

 $\label{eq:email_email} Email: Silvia[dot]Laura[dot]Pintea[at]gmail[dot]com \\ Webpage: http://silvialaurapintea.github.io$

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 and motion representations.

EDUCATION

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

Senior PostDoc	Division of Image Processing (LKEB), LUMC, Leiden, NL
in collaboration with	Vision Lab, Delft University of Technology (TUDelft), Delft, NL
Job Description	Efficient video analysis for surgery videos.
Period	May 2022 — Present
Researcher (Tenure Track)	Vision Lab, Delft University of Technology (TUDelft), Delft, NL
Job Description	Focus on Deep Learning scale-invariance and efficiency
Period	July 2020 — February 2022
$\mathbf{PostDoc}$	Vision Lab, Delft University of Technology (TUDelft), Delft, NL
Job Description	Geophysical seismic image analysis with the use of Deep Learning.
Period	August 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 Med-
	ical Center towards diagnosing and treatment of motor diseases. Project link:
	https://tim.lumc.nl
Period	July 2016 - June 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

[&]quot;A step towards understanding why classification helps regression" SL Pintea, Y. Lin, J. Dijkstra, JC van Gemert, International Conference on Computer Vision (ICCV) 2023.

[&]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;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

QUALIFICATIONS AND TRAINING

BKO University teaching qualifications (TUDelft), completed in 2022.

PDP Tenure Track Personal Development Program (TUDelft), completed in 2021.

TEACHING AND GUIDING

Course responsible BSc Image Processing course (2021-2022),

LECTURER BSc Image Processing course (2017-2022),

 MSc Computer Vision course at $\operatorname{TUDelft}$ (2018-2022)

MSc adviser Tobias Stahl, Yichao Zhang, Chengqiu Zhang, Xilin Li, Yue Liu, Omar Hommos, Xi-

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

Jimmy Vlekke, Frans de Boer, Douwe Hoonhout

PhD adviser Vedran Vukotic (visting student), Abolfazi Nadi (visiting student), Xin Liu

PhD copromotor Dr. Yancong Lin

TEACHING ASSISTANT BSc Short Course on Pattern Recognition (2017-2019)

COMMUNITY SERVICE & ADDITIONAL INFO

INVITED SPEAKER NVPHBV-2017, Nuctech meeting Delft, Delft-Leiden Deep Learning Seminars (2019)

INVITED LECTURER Deep Learning MSc course TUDelft (2019)

AWARD Outstanding Reviewer: CVPR (2021,2022), ICCV (2021), ECCV (2022),

BMVC(2021,2022)

Best paper award for the Workshop on Hands, ECCVw (2018)

INTERNATIONAL CONFERENCES ICCV (2023,2021), CVPR (2021), ECCV (2020,2016,2014), ICIP (2018,2016)

LOCAL CONFERENCES/EVENTS Video Understanding Symposium (2023), NCCV (2018-2023), ICT.Open (2016,2012)

REVIEWER (SINCE 2012) CVPR, ECCV/ICCV, BMVC, WACV, ICPR, TIP, IJCV Python, PyTorch, TensorFlow, C/C++, Caffe, Torch, PHP,

Java, OpenCV, Dlib, Shogun, LibSVM, VlFeat, Yael, Matlab

REFERENCES

TUDelft Prof. Dr. JC van Gemert (J[dot]C[dot]vanGemert[at]tudelft[dot]nl)

LUMC Prof. Dr. Boudewijn P.F. Lelieveldt (B[dot]P[dot]F[dot]Lelieveldt[at]lumc[dot]nl)