Dr. Silvia-Laura Pintea

Computer Vision Researcher
Nationality: Dutch | Pronouns: she/her/hers.
Roles: Researcher, adviser, lecturer, invited speaker, computer scientist.
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My work is in the field of AI, specifically Computer Vision and Deep Learning, where I have extensive experience with video and image analysis, specifically scale-invariance, video motion representations and regression problems.
My current focus is on effective video analysis and robust motion representations.

Work Experience

Senior PostDoc (Guest researcher)	**Division of Image Processing (LKEB), LUMC, Leiden, NL** **Vision Lab, Delft University of Technology (TUDelft), Delft, NL**
Job Description	Efficient video and motion representations towards surgery video analysis.
Period	May 2022 — Present
Researcher	**Vision Lab, Delft University of Technology (TUDelft), Delft, NL**
Job Description	Focus on Deep Learning scale-invariance and efficiency.
Period	July 2020 — February 2022
PostDoc	**Vision Lab, Delft University of Technology (TUDelft), Delft, NL**
Job Description	Collaboration with LUMC and the Geophysics department at TUDelft. Working on image and video analysis: geometric priors, scale-invariance, video representations, etc.
Period	July 2016 — July 2020
R&D Engineer	**Layar/Blippar, Amsterdam, NL**
Job Description	Efficient large-scale image matching and retrieval.
Period	January — June 2016

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 – 2015
MSc	**Artificial Intelligence**, University of Amsterdam, (UvA) Amsterdam, NL
Focus	Machine Learning, Computer Vision, Neural Networks, Game Theory.
Period | Avg. Grade	2009 – 2011 | 8.31 (out of 10)
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 | 9.40 (out of 10)

Key publications

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

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 TUDelft (2018-2022)
MSc adviser	Tobias Stahl, Yichao Zhang, Chengqiu Zhang, Xilin Li, Yue Liu, Omar Hommos, Xiaoming Wen, Jian Zheng, Ziyu Bao, Yordan Dimitrov, Nikhil Saldanha, Ziyu Bao, Jimmy Vlekke, Frans de Boer, Douwe Hoonhout
PhD adviser	Xin Liu, Yancong Lin, Vedran Vukotic (visting student), Abolfazi Nadi (visiting student)
PhD copromotor	Yancong Lin, Xin Liu
Teaching Assistant	BSc Short Course on Pattern Recognition (2017-2019)

Community service & additional info

Invited speaker	Startup Village (Amsterdam, 2022), AIRLab (Delft, 2019), NucTech meeting (Delft, 2018), Delft-Leiden Deep Learning Seminars (Leiden, 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), NVPHBV (2017), ICT.Open (2016, 2012)
Reviewer (since 2012)	CVPR, ECCV/ICCV, BMVC, WACV, ICPR, TIP, IJCV
Programming	Python, PyTorch, TensorFlow, C/C++, Caffe, Torch, PHP, Java, OpenCV, Dlib, Shogun, LibSVM, VlFeat, Yael, Matlab