Dr. Silvia-Laura Pintea

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

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
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)

Work Experience

Senior PostDoc	**Division of Image Processing (LKEB), LUMC, Leiden, NL**
Job Description	Efficient video analysis for surgery videos.
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	Geophysical seismic image analysis with the use of Deep Learning.
Period	July 2018 — July 2020
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" *SL Pintea*, Y. Li, 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

Qualifications and training

BKO	University teaching qualifications (TUDelft), completed in 2022.
PDP	Tenure Track Personal Development Program (TUDelft), completed in 2021.

Teaching and guiding

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
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 Best paper award for the Workshop on Hands, ECCV-2018
International conferences	CVPR-2021, ICCV-2021, ECCV-2020, ICIP-2018, ICIP-2016, ECCV-2016, ECCV-2014
Local conferences	NCCV 2018-2022, ICT.Open-2016, ICT.Open-2012
Reviewer (since 2012)	CVPR, ECCV/ICCV, BMVC, ICPR, TIP, IJCV
Programming	Python, PyTorch, TensorFlow, C/C++, Caffe, Torch, PHP, Java, OpenCV, Dlib, Shogun, LibSVM, VlFeat, Yael, Matlab