

#### Computer Vision Researcher

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

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.

### EDUCATION

$\operatorname{PhD}$	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 in collaboration with Job Description	Division of Image Processing (LKEB), LUMC, Leiden, NL Vision Lab, Delft University of Technology (TUDelft), Delft, NL Efficient video analysis for surgery videos.
Period Researcher	May 2022 — Present  Vision Lab, Delft University of Technology (TUDelft), Delft, NL
Job Description Period	Focus on Deep Learning scale-invariance and efficiency 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	$\mathrm{July}\ 2018\ \mathrm{-\!-\!-}\ \mathrm{July}\ 2020$
$\mathbf{PostDoc}$	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

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

<sup>&</sup>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.

<sup>&</sup>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.

<sup>&</sup>quot;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),

 $\operatorname{MSc}$  Computer Vision course at 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

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