Curriculum Vitae

Marius LEORDEANU

Google Scholar: https://scholar.google.com/citations?user=se9kni0AAAAJ&hl=en&oi=ao

URL for web site: https://sites.google.com/site/mariusleordeanu/home

Total Citations (Google Scholar): 5817, H-index: 23.

EDUCATION

PhD in Robotics, The Robotics Institute, Carnegie Mellon University, USA, 2009

Specialization in Computer Vision, GPA 3.92/4.0.

PhD Thesis: Spectral Graph Matching, Learning and Inference for Computer Vision

PhD Advisor: Professor Martial Hebert, Director of the Robotics Institute.

Bachelor's in Mathematics and Computer Science, Hunter College, New York, 2003, GPA 3.88/4.0

Research work on bipartite graph covering

Scientific Advisor: Professor Cristina Zamfirescu

Research work on automatic 3D registration of large-scale urban scenes.

Scientific Advisor : Professor Ioannis Stamos with whom we published a paper at CVPR 2003.

Habilitation in Computer Science, October 2015, Romanian Academy, Romania.

ACADEMIC AND PROFESSIONAL POSITIONS

Senior Lecturer/Associate Professor, **2015–present**

Computer Science Department, University Politehnica of Bucharest.

Senior Researcher (CSIII) and Principal Investigator (Director de Proiect), 2010 – present

Institute of Mathematics of the Romanian Academy

AWARDS AND FELLOWSHIPS

Romanian Academy "Grigore Moisil" Prize in Mathematics, 2014

Computing Research Association (CRA) Outstanding Undergraduate Award, USA, 2003.

Joseph A. Gillet Memorial Prize in Mathematics, USA, 2003.

Intel PhD Fellowship, USA, 2007-2009 (less than 30 in USA per year awarded).

National Science Foundation Scholarship, USA, 2002-2003.

Prizes at the National Physics Olympiad: Absolute First – 1994; Second – 1996, 1998; Third – 1995.

National Olympiad of Mathematics, Honorable Mention, 1997

SUPERVISION OF DOCTORAL STUDENTS AND POSTDOC RESEARCHERS

PhD supervisor of doctoral students at SCOSAR (Doctoral School of the Romanian Academy): Ioana Croitoru, Vlad Bogolin, Emanuela Haller, Elena Burceanu, Alina Marcu, Dragos Costea and Nicolae Cudlenco, with all of whom we have published papers in top international conferences and journals (ICCV, CVPR, ECCV, AAAI, International Journal of Computer Vision, Neurocomputing).

Postdoctoral supervisor of Radu Ionescu (now Professor at University of Bucharest), with papers at top international conferences CVPR, WACV and Oana Balan (now Associate Professor at UPB), with papers in high impact factor journals (Sensors, Symmetry) and European Conference on Information Systems.

ORGANIZATION OF SCIENTIFIC MEETINGS

Program Chair and Organizer, Embedded Computer Vision Workshop (EVW 2020) in Conjunction with European Conference on Computer Vision (ECCV), Glasgow, UK 2020, the top computer vision conference in Europe (among the top three in the world).

Co-Organizer of the **Eastern European Summer School in Machine Learning (EEML 2019)**, Bucharest 2019 (www.eeml.eu), together with colleagues from DeepMind, Politehnica of Bucharest and Bitdefender. It is the top machine learning summer school Eastern Europe.

Co-Organizer of the **International Summer School on Imaging for Medical Applications (SSIMA)**, Sibiu, 2018 (http://gomit.tech/ssima/). It is the top summer school in medical imaging in Eastern Europe.

Special Sessions Chair for **ACM International Conference on Multimedia Retreival**, 2017. It is one of the top international conferences in the world on multimedia processing.

Co-chair, **Exploratory Workshop on Computer Vision, Learning and Robotics**, for the conference "Diaspora in Cercetarea Stiintifica si Invatamantul Superior din Romania", 2012.

MAJOR COLLABORATIONS

Andrew ZISSERMAN and Sam ALBAINE (Visual Geometry Group, University of Oxford), together with my PhD students Ioana Croitoru and Vlad Bogolin, on the topic of unsupervised learning in video, February 2020 – present.

Rahul SUKTHANKAR, **Director of Research, Google AI**, on many topics in computer vision, including current work on creating Unsupervised Learning Machines, 2006-Present.

Nabil Belbachir, **Chief scientist at NORCE, Norway**, on the topic of Smart Cameras and others related to our **EEA-Grants 2019-2022 Project for which I am the Principal Investigator.**

Viorica PATRAUCEAN and Razvan PASCANU, Research Scientists, Google DeepMind, collaborating on many research topics in artificial intelligence, machine learning, deep neural networks, computer vision, including the organization of scientific events (**Estearn European Machine Learning Summer School - EEML**, among several others)

SCIENTIFIC GRANTS WON AS PRINCIPAL INVESTIGATOR

1. EEA and Norway Grant 2019-2022: EEA-RO-2018-0496 (1.5 Million Euro) "Spacetime Vision – Towards Unsupervised Learning in the 4D World" at UPB
2. European Funds Grant 2015-2019: POC-A1.2.1D-2015-P39-287 (1 Million Euro) –„Automatic interpretation of images and video sequences using natural language processing" (PI with Traian Rebedea) at UPB
3. UEFISCDI Grant 2018-2020: PN-III-P1-1.2-PCCDI2017-0734 (1.7 Million Euro) „Robots and Society: Cognitive Systems for Personal Robots and Autonomous Vehicles" (I am the PI of the IMAR Partner).
4. UEFISCDI Grant 2018-2020: TE-2016-2182 (100K Euro) « Vision in Words : Automatic Linguistic Description of Objects, People and their Interactions in Indoor Videos" at IMAR
5. UEFISCDI ERC-like Grant 2016-2018: ERC-2016-0007 (170K Euro) "The Classifier Graph: A Recursive Multiclass Network for Deep Category Recognition in Images and Video" at IMAR
6. UEFISCDI Grant 2016-2018: PED-2016-1842 (105K Euro) "Automatic linguistic descriptions of objects, people and their interactions in indoor videos" at IMAR
7. UEFISCDI Grant 2012-2016: PCE-2012-4-0581 (300K Euro), "Automatic Video Understanding at Middle and Higher Levels of Interpretation" at IMAR

RESEARCH ARCHITECT IN INDUSTRIAL AI PROJECTS

1. **Collaboration with FORDAQ:** coordinating a team of four people on an R&D project related to artificial intelligence and computer vision for automating the wood industry, with clients in the entire world, especially in the USA. In 2019 we won a 2 year **European Funds Grant together with Fordaq (POC/524/2/2 1.2 Million Euro),** titled „Neural Grader - Automated System for Semantic Analysis and Grading of Wood in Images using Efficient Computer Vision Methods and Deep Neural Networks". We also have a **US Patent**, accepted and published as of March 2020.
2. **Collaboration with BITDEFENDER:** coordinating a team of four people on research projects related to unsupervised object discovery in video and vision to language translation from video.
3. **Collaboration with ARNIA:** coordinating a team of three people on projects related to self-driving cars and other robotics applications with clients in Germany and South Korea

INVITED PRESENTATIONS AND TALKS

2009-Present: over 50 invited talks at international conferences, summer schools and labs, including:
Visual Geometry Group led by Andrew Zisserman (University of Oxford) DeepMind (London)
Computer Vision Group led by Kostas Daniilidis (University of Pennsylvania, USA)

Computer Vision Group led by Ioannis Kakadiaris (University of Houston, USA)
Computer Vision Group led by Ioannis Stamos (City University of New York, USA)
TEDxUPB - 2018

SPECIAL GUEST IN SCIENCE AND EDUCATION TV AND RADIO SHOWS
Full list of shows available at: https://sites.google.com/site/mariusleordeanu/home

TVR1 – host of the "Authentic Romania" TV series, Episode 2
Digi24 – "Bonton", TVR2 – "A Second Emigration" TV show
Discovery Channel – "A Career in Science" TV show
Radio Romania Cultural – „Izvoarele filosofiei" („Sources of Philosophy") radio show, 2 editions

AREA CHAIR AT TOP INTERNATIONAL CONFERENCES

Area Chair for the International Conference on Computer Vision (ICCV) 2019, Rank A+
Area Chair for Computer Vision and Pattern Recognition (CVPR) 2020, Rank A+
Area Chair for European Conference on Computer Vision (ECCV) 2020, Rank A
Area Chair for Winter Applications for Computer Vision (WACV) 2018, Rank A

MEMBER OF EDITORIAL BOARDS

Area Editor for Computer Vision and Image Understanding (CVIU), Impact factor 3.07,
Area Editor for Machine Vision and Applications (MVA), Impact factor: 2.0 and
Area Editor for IET Computer Vision, Impact factor: 1.1
Guest Editor of Special Issue on Sensors and Techniques for 3D Object Modelling, Sensors, IF: 3.27

PUBLISHED BOOKS, ART COLLABORATIONS AND MUSIC COMPOSITION

Scientific book: M. Leordeanu, Unsupervised Learning in Space and Time: A Modern Approach for Computer Vision using Graph-based Techniques and Deep Neural Networks, 300 pages, Springer Nature, May 2020. **3.8K copies sold in 3 months** on https://link.springer.com/book/10.1007/978-3-030-42128-1

Art-Media Exhibitions: C. Lazar, N. Rosia, P. Lucaci and M. Leordeanu: SmileProject Deep Immersive Art with Realtime Human AI Interaction (https://sites.google.com/view/smile-Project), exhibited at:
Diploma(https://diplomafestival.ro/portofolii/proiectulzambet), November 2019
Binar Festivals (https://institute.ro/digital/binar-2019-5367.html) national art exhibitions, November 2019

Popular science book: M. Leordeanu, „My name is blue", 178 pages, Green Valley, 2016
Poetry book: M. Leordeanu, "The story of a word", 76 pages, Papirus Media, 2013.
Music composition: Available online at: https://www.youtube.com/user/MariusLeordeanu.