

Marius Leordeanu

Email: leordeanu@gmail.com

Phone: +40746033711

Curriculum Vitae

Educatie:

PhD in Robotica/Computer Science, 2009

Specializare in Computer Vision / Machine Learning / Inteligenta Artificiala, **Medie Generala 3.92/4.0**

Ph.D. Advisor: Profesor Dr. Martial Hebert

Carnegie Mellon University, USA.

Master of Science in Robotica/Computer Science, 2006

Specializare in Computer Vision / Machine Learning / Inteligenta Artificiala

Carnegie Mellon University, USA.

Bachelor's degrees in Computer Science and Mathematics, 2003

Hunter College - City University of New York, USA. **Medie Generala 3.88/4.0**

Freshman in Computer Science and Engineering (Rom. Calculatoare)

Technical University of Cluj-Napoca (UTCN), **Medie Generala 9.85/10.0** (a 2-a in clasa de cel putin 120 studenti).

Publicatii:

Numar Total de Referinte (Citations) (sursa: Google Scholar): **1892, h-index: 12.**

Profil Google Scholar: <http://scholar.google.ro/citations?user=se9kni0AAAAJ>

Selectie de Lucrari in Jurnale de Specialitate:

Factor de Impact Cumulat (Pentru lucrari deja publicate): 14.16.

(Sursa Factori de Impact: http://uefiscdi.gov.ro/istoric_Scor_Relativ_Influenta.xls).

1. R. Collins, Y. Liu and M. Leordeanu, *Online Selection of Discriminative Tracking Features*, IEEE TPAMI, **Impact factor: 6.68. Citations: 925.**
2. M. Leordeanu, R. Sukthankar and M. Hebert, *Unsupervised Learning for Graph Matching*, International Journal of Computer Vision (IJCV), 2012. **Impact factor: 5.76. Citations: 32.**
3. M. Leordeanu, R. Sukthankar and C. Sminchisescu, *Generalized Boundaries from Multiple Image Interpretations*, submitted to IEEE TPAMI, 2013 (a trecut de prima faza de review), **Impact factor: 6.68.**
4. PK Allen, A. Troccoli, B. Smith, S. Murray, I. Stamos and M. Leordeanu, *New Methods for Digital Modeling of Historic Sites*, Computer Graphics and Applications, **Impact factor: 1.72. Citations: 69.**

Slectie Lucrari Publicate in Conferinte de Top International (Categorie A):

1. M. Leordeanu and M. Hebert, *A Spectral Technique for Correspondence Problems Using Pair-wise Constraints*, International Conference on Computer Vision (ICCV), 2005. **Citations: 331.**
2. I. Stamos and M. Leordeanu, *Automated Feature-Based Registration of Urban Scences of Large Scale*, IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2003. **Citations: 118.**
3. M. Leordeanu, M. Hebert, R. Sukthankar, *Beyond Local Appearance: Category Recognition from Pairwise Interactions of Simple Features* CVPR 2007. **Citations: 102.**
4. J. Mairal, M. Leordeanu, F. Bach, M. Hebert and J. Ponce, *Discriminative Sparse Image Models for Class-Specific Edge Detection and Image Interpretation*, ECCV, 2008. **Citations: 84.**
5. J. Hays, M. Leordeanu, A. Efros and Y. Liu, *Discovering Texture Regularity as a Higher-order Correspondence Problem*, ECCV, 2006. **Citations: 83.**
4. M. Leordeanu, M. Hebert and R. Sukthankar, *An Integer Projected Fixed Point Method for Graph Matching and MAP Inference*, Neural Information Processing Systems (NIPS), 2009. **Citations (Google Scholar): 33.**
5. M. Leordeanu and R. Collins, *Unsupervised Learning of Object Features from Video Sequences*, IEEE Computer Vision and Pattern Recognition (CVPR), 2005. **Citations: 28.**
8. M. Leordeanu and M. Hebert, *Efficient MAP Approximation for Dense Energy Functions*, International Conference on Machine Learning, USA, 2006. **Citations: 13.**
9. M. Leordeanu and M. Hebert, *Smoothing-based Optimization*, Computer Vision and Pattern Recognition, USA, 2008. **Citations: 6.**
10. M. Leordeanu, A. Zanzir and C. Sminchisescu, *Semi-supervised Learning and Optimization for Hypergraph Matching*, International Conference on Computer Vision, Barcelona, 2011. **Citations: 6.**

Premii si Competitii:

Recipient al prestigiosului Intel PhD Fellowship, USA, 2007-2009 (mai putin de 30 pe an acordate in USA).

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

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

National Science Foundation Scholarship, USA, 2002 si 2003.

Recipient al Grantului de Cercetare Exploratorie – Competitia IDEI, Mate-Info, 2012, Romania (locul 5 la punctaj).

Honor Scholar la Hunter College – City University of New York, USA, toate semestrele.

Premii la Olimpiada Nationala de Fizica, Romania (Primul absolut, 1994; Trei, 1995; Doi, 1996; Mentiune, 1998).

Finalist la Olimpiada Nationala de Matematica, Romania (1997).

Experienta Profesionala:

Senior Research Scientist, August 2010 – prezent

Institutul de Matematica al Academiei Romane (IMAR)

- lucrat si colaborat indeaproape cu studenti si cercetatori din domeniu.
- Coordonat doi studenti pe optical flow, graph matching, detectie de ocluzii si recunoastere de actiuni.
- Scris/Co-autor a sapte (7) lucrari stiintifice pe: 1) invatare nesupervizata pentru graph matching (IJCV 2012); 2) invatare semisupervizata si optimizare pentru hyper-graph matching, aplicata pe object matching si tracking (ICCV 2011); 3) hyper-graph clustering eficient (AISTATS 2012); 4) detectia de margini/boundaries generalizate din interpretari multiple ale imaginii (ECCV 2012 si PAMI 2013). 5) estimare de optical flow si ocluzii (ICCV 2013) . 6) recunoastere automata de activitati si actiuni folosind camere RGB-D (ICCV 2013).
- Predat un curs de computer vision studentilor si cercetatorilor juniori (toamna-2010), care a acoperit mai multe aspecte, elemente si metode de Invatare Automata, Algebra Liniara, Probabilitati si Statistica si programare Matlab.
- Coordonat si sustinut un seminar avansat de Computer Vision si Invatare Automata.

Cercetare la nivel Graduat, 2003-2009

The Robotics Institute, Carnegie Mellon University, USA, Supervisor: Prof. Dr. Martial Hebert.

- Cercetare axata pe computer vision, machine learning si optimizare; dezvoltat metode pentru invatare si inferenta and inference for object recognition, feature matching si inferenta MAP inference in modele grafice probabilistice.
- Introdus metode de nivel state-of-the-art cum ar fi Spectral Graph Matching (SM) si metoda Integer Projected Fixed Point (IPFP). Acestea sunt in prezent folosite de cercetatori si ingineri din multe centre, laboratoare si universitati ale lumii pentru diverse aplicatii de recunoastere de actiuni din vide, motion capture, achizitie de scene in 3D, descoperirea automata de obiecte din imagini si video, analiza simetriei in imagini. In jur de **30 de Patente Internationale** folosesc si citeaza munca noastra (www.freepatentsonline.com).
- Publicare de articole in jurnale si conferinte de top international.

Internship la Intel Research Lab

Pittsburgh, USA, Summer 2006. Supervisor: Dr. Rahul Sukthankar.

- Dezvoltat un sistem pentru recunoastere automata de obiecte si categorii de obiecte folosind modele de forme, contururi si metoda de spectral graph matching (SM) publicata la CVPR 2007.

Internship la Google

Mountain View, USA, Summer 2005. Supervisor: Dr. Henry Rowley.

- Proiect legat de alinierea si recunoasterea automata a fetelor umane si detectia automata a ochilor.

Alinierea si Modelarea 3D a cladirilor si scenelor urbane folosind achizitii de date cu Laser 3D

Hunter College, New York, 2002-2003, Supervisor: Prof. Dr. Ioannis Stamos.

-Dezvoltat si implementat o metoda care alinieaza automat scene urbane 3D fara initializare; Catedrala St Pierre de Beauvais, Franta (UNESCO World Heritage Monument) and Thomas Hunter Building, Hunter College, au fost scanate si modelele 3D aliniate si create cu succes (publicat in CVPR and ICRA 2003, Comp. Graphics Journal, 2003).

-Lucrat pe problema de reconstrucie de suprafete 3D folosind 3D point clouds. Dezvoltat o metoda de simplificare a mesh-ului 3D publicata in 3DPVT 2004.

Invited/Public Talks, Lectures and Television Appearances:

September 2013: prezentarea "Turismul Viitorului: Computer Vision si Inteligenta Artificiala pentru Augmentarea Experientei Turistice", invitat de Academia de Studii Economice Bucuresti, Scoala de Vara, Brasov.

July 2013: "Motivation si Performance", Invitat Special, Developer's Day, GARMIN, Cluj-Napoca, Romania.

Aug. 2013: "Vedere si Simbol in Viata Omului si Lumea Tehnologiei", discutie de o ora cu Preot Dr. Adrian S. Mihalache (Doctor in Filosofie, licentiate in Matematica si Teologie), emisiunea "Lumina celui Nevazut", Trinitas TV.

Aug. 2013: "Editie Speciala, Super-seara Americana", duminica seara, 9PM, discutie de o ora despre cultura si educatia in America, in direct, alaturi de Ministrul de Externe Titus Corlatean si alti invitati, Antena 3.

November 2012: "Cercetari recente in inteligenta artificiala: sperante si provocari", discutie de o ora cu Preot Dr. Adrian S. Mihalache (doctor in filosofie, licentiat in Matematica si Teologie), "Lumina celui Nevazut", Trinitas TV.

August 2012: "Viitorul Suna RO", discutie de o ora in direct impreuna cu Profesorul Radu Marinescu si alti invitati, emisunea "Secvential", moderator Adrian Ursu, Antena 3.

July 2010: "Spectral Graph Matching for Computer Vision", University of Pennsylvania, Philadelphia, USA.

August 2010: doua prezentari cu subiectul "Spectral Graph Matching, Learning and Inference: Theory and Applications", University of Houston, Houston, USA.

June 2007: "Beyond Local Appearance: Category Recognition from Pairwise Interactions of Simple Features", prezentare orala la International Conference on Computer Vision and Pattern Recognition, Minneapolis, USA (audienta, intre 500-1000 cercetatori, profesori, studenti etc).

October 2005: "A Spectral Technique for Correspondence Problems using Pairwise Constraints", prezentare orala, International Conference on Computer Vision, Beijing, China (audienta, intre 500-1000 cercetatori, profesori, etc).

Organizator si Co-chair: Workshop Exploratoriu: Rezultate actuale si probleme deschise in perceptia vizuala computationala, robotica si in invatarea automata pe scara larga (<http://www.diaspora-stiintifica.ro/index.php?page=programe-workshop&id=3>), in cadrul conferintei "Diaspora in Cercetarea Stiintifica si Invatamantul Superior din Romania", Bucuresti, 25-28 Septembrie, 2012.

In Program Committee al urmatoarelor conferinte de Categorie A (top international):

International Conference on Computer Vision (ICCV), International Conference on Computer Vision and Pattern Recognition (CVPR), European Conference on Computer Vision (ECCV), Asian Conference on Computer Vision (ACCV), British Machine Vision Conference (BMVC), International Conference on Robotics and Automation (ICRA).

Reviewer Pentru Urmatoarele Jurnale:

IEEE Transactions on Pattern Analysis and Machine Intelligence (**Impact factor 6.68**).

International Journal of Computer Vision (**Impact factor 5.76**).

IEEE Transactions on Image Processing (**Impact factor 3.72**).

IEEE Transactions on Multimedia (**Impact factor 3.39**).

Journal of Computer Vision and Image Understanding (**Impact factor 2.85**).

Journal of Image and Vision Computing (**Impact factor 1.85**).

Journal of Visual Communication and Image Representation (**Impact factor 1.14**).

Alte activitati:

Versuri: <http://marius-leordeanu-poems.tumblr.com/>. Primul meu volum de poezii, intitulat "Povestea unui cuvânt", va apărea în curând (toamna 2013) la Editura Papyrus Media, condusă de Preotul Cornel Paiu.

Compozitii Muzicale: <http://leordeanu.tumblr.com/>.

"Cercetarea Stiintifica – O Investitie in Viitorul Nostru", M. Leordeanu, Income Magazine, Aprilie 2013

<http://incomemagazine.ro/articole/cercetarea-stiintifica-o-investitie-in-viitorul-nostru>.