Michael Iliadis

Contact Information

Michael Iliadis
Sr. Machine Learning Engineer
Captricity
1999 Harrison St.
Oakland, CA 94612

Mobile: +1-408-886-0912
miliad@u.northwestern.edu
users.eecs.northwestern.edu/~mif365
github.com/miliadis

Research Interests

Research in Machine Learning/Deep Learning for Computer Vision and Image Processing applications. Recent projects include Image Document/Text Analysis and Recognition, Semantic Segmentation for Scene Understanding, Video Compressive Sensing and Face Recognition.

Education

Northwestern University, Evanston, IL USA   09/2011 - 06/2016

Ph.D., Department of Electrical Engineering & Computer Science

- *Thesis*: Sparse Representation and Deep Learning for Image and Video Reconstruction
- *Advisor*: Aggelos K. Katsaggelos
- *Committee*: Aggelos K. Katsaggelos, Oliver Cossairt and Goce Trajcevski

University of Bath, Bath, UK   09/2008 - 09/2009

MSc, Department of Computer Science

- *Thesis*: Automatic Optimisation of Data Structures for Client-Server Computing
- *Advisor*: John Fitch

University of Piraeus, Piraeus, Greece   09/2003 - 06/2008

BSc, Department of Digital Systems

- *Thesis*: Discrete Event Modeling and Simulation of a Call Center
- *Advisor*: John Paravantis

Employment

Captricity, Oakland, CA USA   08/2017 - Present

Senior Machine Learning Engineer, Machine Learning Team
- Research in Machine Learning for Image Document/Text Analysis and Recognition
- Implemented machine learning features to Captricity products

SONY US Research Center, San Jose, CA USA   08/2016 - 08/2017

Research Scientist, Visual Sensing Technology
- Developed semantic segmentation for Sony mobility products
- Designed a novel end-to-end FCN - CRF network for boundary refinement
- Improved semantic segmentation runtime by applying knowledge distillation loss

Northwestern University, Evanston, IL USA   09/2011 - 06/2016

Research assistant, Image and Video Processing Lab
- Advisor: Aggelos K. Katsaggelos
- Research in Data-Driven Computer Vision and Image Processing
- Implemented a Visual Search app for Northwestern students

TCL Research America, San Jose, CA USA   06/2014 - 09/2014

Research Intern, Multimedia Lab
- Advisor: Dr. Haohong Wang
- Designed novel sparsity method for face recognition
- Implemented REST APIs for face recognition
- Published 1 journal paper and 3 patents

TCL Research America, San Jose, CA USA   06/2013 - 09/2013

Research Intern, Multimedia Lab
- Advisor: Dr. Haohong Wang
- Designed a large-scale video retrieval system
- Published 1 conference paper and 1 patent

Teaching Experience

Northwestern University

TA of Ian D. Horswill, Data Structures and Data Management, Spring '15 and '16
TA of Michael Honig, Engineering Analysis I, Fall '15

Publications

Google scholar: scholar.google.com/citations?user=eitRqV0AAAAJ&hl=en

Alice Lucas, **Michael Iliadis**, Rafael Molina and Aggelos K. Katsaggelos. Using Deep Neural Networks for Inverse Problems in Imaging. *Submitted to Journal.*

Michael Iliadis, Leonidas Spinoulas and Aggelos K. Katsaggelos. DeepBinaryMask: Learning a Binary Mask for Video Compressive Sensing. *Submitted to Journal.*

Michael Iliadis, Leonidas Spinoulas and Aggelos K. Katsaggelos. Deep Fully-Connected Networks for Video Compressive Sensing. *Elsevier Digital Signal Processing, January 2018.*

Michael Iliadis, Haohong Wang, Rafael Molina and Aggelos K. Katsaggelos. Robust and Low-Rank Representation for Fast Face Identification with Occlusions. *IEEE Transactions on Image Processing (TIP), May 2017.*

Michael Iliadis, Leonidas Spinoulas, Albert S. Berahas, Haohong Wang and Aggelos K. Katsaggelos. Multi-Model Robust Error Correction for Face Recognition. *IEEE International Conference on Image Processing (ICIP)*, Phoenix, USA, September 2016.

Armin Kappeler, **Michael Iliadis**, Haohong Wang and Aggelos K. Katsaggelos. Block Based Video Alignment with Linear time and Space Complexity. *IEEE International Conference on Image Processing (ICIP)*, Phoenix, USA, September 2016.

Michael Iliadis, Leonidas Spinoulas, Albert S. Berahas, Haohong Wang and Aggelos K. Katsaggelos. Sparse Representation and Least Squares-Based Classification in Face Recognition. *European Signal Processing Conference (EUSIPCO)*, Lisbon, Portugal, September 2014.

Michael Iliadis, Jeremy Watt, Leonidas Spinoulas and Aggelos K. Katsaggelos. Video Compressive Sensing using Multiple Measurement Vectors. *IEEE International Conference on Image Processing (ICIP)*, Melbourne, Australia, September 2013. **Top 10% Paper Recognition**

Michael Iliadis, Seunghwan Yoo, Xin Xin and Aggelos K. Katsaggelos. Virtual Touring: A Content Based Image Retrieval Application. *In IEEE Int. Conf. on Multimedia & Expo Workshops (ICMEW)*, San Jose, CA, July 2013.

Michael Iliadis and John A. Paravantis. A Multivariate Cross-Country Empirical Analysis of the Digital Divide. *In Proceedings of the sixteenth IEEE Symposium on Computers and Communications (ISCC)*, June 2011.

SELECTED PATENTS	**Michael Iliadis**, Haohong Wang. Face Recognition System and Method. *TCL Research America*, US Patent 9430694. August 2016.

Michael Iliadis, Armin Kappeler, Haohong Wang. Method and System for Face Recognition using Deep Collaborative Representation-Based Classification. *TCL Research America*, US Patent 9430697. August 2016.

Michael Iliadis, Haohong Wang. System and Method for Rapid Face Recognition. *TCL Research America*, US Patent 9275309. March 2016.

COMPUTER SKILLS	– Programming Languages: Python, Java, C++, Matlab, Lua, Ruby on Rails – Machine Learning/Deep Learning: PyTorch, Caffe, Torch – Web Technologies: HTML, XML, CSS, Web Services

PROFESSIONAL SERVICE	**Reviewer**: TMM, TIP, ICME 2014

LANGUAGE SKILLS	Greek (native), English (fluent).