

SADJAD ASGHARI-ESFEDEN

PERSONAL INFORMATION

Robust Systems Lab
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RESEARCH INTERESTS

Video Segmentation
Person Re-Identification

Social Media Analysis
Deep Learning

EDUCATION

- ◇ **Department of Electrical and Computer Engineering, Northeastern University**
 - Ph.D. in Computer Engineering** Sep. 2013 – Present
 - M.Sc. in Computer Engineering** May 2015
 - **Supervisor:** Prof. Octavia Camps
- ◇ **School of Electrical and Computer Engineering, University of Tehran, Tehran, Iran**
 - B.Sc. in Computer Engineering (Major: Software Engineering)** Sep. 2008 – Aug. 2013
 - **Thesis Title:** Towards a Biologically Inspired Universal Dictionary of Visual Features for Object Recognition. **Supervisor:** Dr. Reza Ebrahimpour

PUBLICATIONS

Papers:

- Mengran Gou, Xikang Zhang, Angels Rates-Borras, **Sadjad Asghari-Esfeden**, Mario Sznaiar, Octavia Camps, “**Person Re-identification in Appearance Impaired Scenarios,**” British Machine Vision Conference (BMVC), 2016.
- M. Soleymani, **S. Asghari-Esfeden**, Y. Fu, M. Pantic, “**Inter-modality interaction between EEG signals and facial expressions for continuous valence detection,**” IEEE Transactions on Affective Computing, 2015.
- M. Soleymani, **S. Asghari-Esfeden**, M. Pantic, Y. Fu, “**Continuous Emotion Detection Using EEG Signals and Facial Expressions,**” IEEE International Conference on Multimedia and Expo (ICME), 2014 (Oral presentation).

Technical Reports:

- “**Crowdsourcing for Continuous Annotations**”, S. Asghari-Esfeden, final project report for “Machine Learning” Course, Spring 2014.
- “**Facial Feature Extraction for Emotion Recognition**”, S. Asghari-Esfeden, final project report for “Digital Image Processing” Course, Spring 2014.

RESEARCH AND WORK EXPERIENCES

Walt Disney Imagineering (WDI)

Research and Development Team, Glendale, CA., USA.

R&D Computer Vision Intern - Supervisor: Dr. Douglas A. Fidaleo

Summer 2016

- *Undisclosed project.*

Robust Systems Laboratory (RSL)

Department of ECE., Northeastern University, Boston, MA., USA.

Research Assistant - Supervisor: Prof. Octavia Camps

Jan. 2015 – Present

- *Pedestrian Detection and Person Re-Identification*
- *Semantic Video Segmentation*

Synergetic Media Learning (SMILE) Laboratory
Department of ECE., Northeastern University, Boston, MA., USA.
Research Assistant - Supervisor: Dr. Yun Raymond Fu

Sep. 2013 – Dec. 2014

- *Emotion Detection*

We detect emotions from EEG signals and facial expressions in response to videos. Using power spectral features from EEG signals and facial landmarks, we detect valence (pleasantness) levels for each frame continuously. We also study the effect of the changes in the stimulus (audio and visual features) on the emotional response of viewers.

Hoyos Labs.

Cambridge Innovation Center, Cambridge, MA., USA.
Research and Development Intern - Computer Vision Group

Summer 2014

- *Face Liveness Detection (Biometrics)*

We designed and developed several real-time tests to determine face liveness using smart phones' front camera (developed for iOS and Android). Using Image processing and computer vision methods (facial landmark detection, frequency and dynamic texture analysis, motion detection, 3D face model, etc.) we could differentiate between still images and videos and real faces for authentication.

Computational Models of Visual Cortex (CMVC.) Group
BMI and Neuroscience Laboratories, School of Cognitive Sciences (SCS.), Institute for Research in Fundamental Sciences (IPM.), Tehran, Iran.

Training and Research Assistant - Supervisor: Dr. Reza Ebrahimpour Jun. 2012 – Aug. 2013

- *Biologically Inspired Universal Dictionary of Visual Features for Object Recognition*

We attempted to find a dictionary of visual features and use it in several tasks of object recognition and categorization. This universal dictionary is based on recent biological evidence of human visual system.

Social Networks Laboratory

School of ECE., University of Tehran, Tehran, Iran.

Training and Research Assistant - Supervisor: Dr. Masoud Asadpour

- *Mining Social Network of Persian Blogosphere*

Sep. 2011 – Jan. 2012

We studied blogs of Blogfa and their web graph, and analyzed the websites that cited by these blogs. Based on this study we suggested a method to estimate the content similarity among these websites.

Internship - Supervisor: Dr. Masoud Asadpour

Jun. 2011 – Aug. 2011

COMPUTER SKILLS

- *Programming Tools and Languages:* Caffe, TensorFlow, MATLAB, C++, Python, OpenCV, Android Programming.
- *Applications:* L^AT_EX, VIM.