

Ali Zarezade

Room 803, Digital Media Lab
CE Dep. Sharif Univ. of Tech.
Azadi Ave., Tehran, Iran
☎ +98912 6201930
☎ 021 66166683
✉ zarezade@ce.sharif.edu



Education

- 2003–2007 **BSc**, *Aerospace Engineering*, Amirkabir University of Technology, *GPA* 16.90.
Double major: Computer Engineering
- 2007–2009 **MSc**, *Aerospace Engineering*, Sharif University of Technology, *GPA* 16.81.
- 2011–2013 **MSc**, *Computer Engineering*, Sharif University of Technology, *GPA* 18.47.
3rd rank in nationwide MSc entrance exam
- 2013–Present **PhD**, *Computer Engineering*, Sharif University of Technology, *GPA* 19.26.

Master Thesis

- Title **Object Tracking via Sparse Representation Model**
- Supervisors Prof. H.R. Rabiee
- Description We take advantage of joint sparse representation to propose a patch wise model for object appearance and update model using adaptive Markov chain which detect and remove occluded patches. Object tracked in particle filter framework with likelihood proportional to reconstruction error of object candidates [1,2].

PhD Proposal

- Title **Event History Analysis in Complex Networks**
- Supervisors Prof. H.R. Rabiee
- Description We aim to model, predict and control events in complex networks given their history, where events are like tweets in Twitter [3] or checkins in Foursquare. For **Modeling** of events we use doubly stochastic poisson process, which its intensity updates by history. For **Prediction** we learn the parameters of model given real data of events on various complex networks. For **Control** we propose a doubly stochastic optimal control formulation.

Experience

Research

- 2016 **Internship at MPI**, *Max Planck Institute for Software System, Germany*, working on, *An Online Algorithm for Smart Broadcasting in Social Networks*.
- 2015 **Poisson Processes**, *Sharif University of Technology*, DML reading group, *Poisson Processes* by J.F.C Kingman.
- 2013-2014 **Bayesian Nonparametric**, *Sharif University of Technology*, DML reading group, Chapter 1 to 4 of *Lecture Notes on Bayesian Nonparametrics* by Peter Orbanz.
- 2013-2014 **Measure Theory**, *Sharif University of Technology*, DML reading group, Chapter 1 to 8 of *Probability with martingales* by David Williams.
- 2012-2013 **Visual Object Tracking**, *Sharif University of Technology*, MSc Project.
- 2012-2013 **Object Detection**, *Sharif University of Technology*, Research project in conjunction with MSc thesis.
- 2012 **Background Subtraction**, *Sharif University of Technology*, Image processing course project.

Teaching Assistant

- 2015 **Image Processing**, *Sharif University of Technology*, Prof. H. Rabiee.
- 2015 **Statistical Learning Theory**, *Sharif University of Technology*, Prof. H. Rabiee.
- 2013, 2014 **Stochastic Process**, *Sharif University of Technology, Aerospace Engineering Department*, Prof. H. Rabiee.
- 2012, 2013 **Statistical Pattern Recognition**, *Sharif University of Technology, Computer Engineering Department*, Prof. H. R. Rabiee.

Work

- 2015 **PALPR**, *Sharif University of Technology*, Designing an automatic license plate detector for Persian language.
- 2014 **Data Mining**, *Pegahtech Company*, Mining banking transactions.

Awards and Honors

- 2016 Nominated as exceptional talent in...
- 2011 Ranked 3rd in MSc Entrance Exam of Computer Engineering among more than 30000 competitors
- 2007 Ranked 40th in MSc Entrance Exam of Aerospace Engineering
- 2006 Admitted to MSc of Aerospace Engineering, at Amirkabir University of Technology based on Exceptional Talents Admittance
- 2005 Ranked 4 in the faculty and granted to study computer engineering as the second major, at Amirkabir University of Technology based on Exceptional Talents Admittance
- 2002 Selected student in the first stage of National Physics Olympiad
- 2002 Nominate student for the Province Math Contest

2001, 2002 Selected student in the first stage of National Mathematics Olympiad, and National Information Olympiad

Computer skills

Basic CATIA, CSS, HTML

Intermediate C++, Java, Fortran, Linux, Mac OS X, Photoshop, GIMP, Inkspace

Advanced MATLAB, \LaTeX , Python

Languages

Persian **Mother Tongue**

English **Upper Intermediate**

French **Beginner**

Publications

- [1] **A. Zarezade**, H. R. Rabiee, A. Soltani-Farani, A. Khajenezhad, "Patchwise Joint Sparse Tracking with Occlusion Detection", *IEEE Transactions on Image Processing*, 2014. (impact factor: 3.62)
- [2] A. Soltani-Farani, H. R. Rabiee, **A. Zarezade**, "Collaborating Frames: Temporally Weighted Sparse Representation for Visual Tracking", *IEEE International Conference on Image Processing (ICIP'14)*, 2014.
- [3] **A. Zarezade**, A. Khodadadi, M. Farajtabar, H. R. Rabiee, L. Song, H. Zha, "Correlated Cascades: Compete or Cooperate", *Submitted to WSDM 2016*.