Ali Mirzaei

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Hafez Avenue, Tehran, Iran   Last update: March 2017

Education

- **M.Sc. in Electrical Engineering**   2013-2015
    - Amirkabir University of Technology(Tehran Polytechnic)
    - Average: **18.78/20** via 32 credits
    - Ranked **2nd** among System and Communication students
    - Thesis
        - Title: "*Variational Relevant Sample-Feature Machine: A fully Bayesian approach for embedded feature selection*"
        - Abstract: This thesis presents a Bayesian learning approach for embedded feature selection. This approach employs a fully Bayesian framework to achieve a model which is sparse in both sample and feature domains. We introduce a novel multi-step algorithm based on Variational Approximation to efficiently compute all model parameters in order to optimize the maximum a posteriori probability (MAP) measure.
    - Advisors : Dr. Hamid Sheikhzadeh , Dr. Yalda Mohsenzadeh
- **B.Sc. in Electrical Engineering**   2009-2013
    - Amirkabir University of Technology(Tehran Polytechnic)
    - Average until now : **18.69/20** via 140 credits
    - Ranked **2nd** among about 45 System and Communication students
    - Ranked **5th** among about 165 Electrical Engineering students
    - Thesis title: "Game Theoretic Approach for Management of Pursuing of multi-target"
    - Advisor : Dr. Yaser Norouzi
- **B.Sc. in Computer Science as a Second Major**   2011-2015
    - Amirkabir University of Technology(Tehran Polytechnic)
    - Average: **17.71/20** via 133 credits
- **Diploma in Mathematics and Physics Discipline**   2004-2009
    - Shahid Beheshti High School, Birjand, Iran
    - Affiliated with National Organization for Development of Exceptional Talents (NODET)
    - Diploma in Mathematics and Physics Discipline, Average : **19.40/20**

Research Interests

- Machine learning, Computer Vision, Artificial intelligent, Signal Processing, Game theory

Honors & Awards

- Identified as the best team in Amirkabir Artificial Intelligence Competition **Nov 2015**
    - "Vehicle Detection and Tracking" league.
- Ranked 4th in National Olympiad of Electrical Engineering **Sep 2013**
    - Among all Electrical Engineer students in Iran
    - The most authentic exam among Engineers in Iran
    - Leader of EE Olympiad Team at AUT : Dr. Gh. Moradi
- Offered admission to M.Sc. in Systems and Communications **Aug 2013**
    - At Amirkabir University as talented undergraduate student
- Ranked 45th in M.Sc. Entrance Exam (Electrical Engineering) **Aug 2013**
    - Among about 15000 nationwide students
    - Admission to Cryptography at Sharif University (but I did not use it)
- Awarded to study in Computer Science B.Sc. as a second major **Oct 2011**
- Ranked 2nd in "Design of Analog and Digital Circuits" Competition
    - Among all universities in Iran
- Ranked **172th** in National University Entrance Exam (Konkoor) **Sep 2009**
    - Among about 400,000 nationwide students
- Ranked **3rd** in National Physics Laboratorial Olympiad Competition **Aug 2008**
- Taking part at Iran Open 2008 Robocup Competition **April 2008**
    - 3D soccer simulation league with iRobot team
- Member of students Robocup team of South-Khorasan province **2007**
    - 2D soccer simulation league
- Accepted at NODET's entrance exam **2004**

Publications and Workshops

- Journals:
    - **Mirzaei, Ali**, Yalda Mohsenzadeh, and Hamid Sheikhzadeh. "Variational Relevant Sample-Feature Machine: A fully Bayesian approach for embedded feature selection." Neurocomputing (2017).
- Conferences:
    - **Mirzaei, Ali**, Yalda Mohsenzadeh, and Hamid Sheikhzadeh. "Adaptive Gaussian kernel learning for sparse Bayesian classification: an approach for silhouette based vehicle classification." Machine Vision and Image Processing (MVIP), 2015 9th Iranian Conference on. IEEE, 2015.

- o Shammakhi, M. H., **Mirzaei, A.**, Khavari, P., & Pourahmadi, V. (2015, November). Combined mRMR-MLPSVM scheme for high accuracy and low cost handwritten digits recognition. In Machine Vision and Image Processing (MVIP), 2015 9th Iranian Conference on (pp. 155-158). IEEE.
  - o Soroush, Ebrahim, **Ali Mirzaei** and Shiva Kamkar. "Near Real-Time Vehicle Detection and Tracking in Highways." International Conference on Traffic and Transportation Engineering, 2016
- • Workshops:
  - o "Introduction to OpenCV, Workshop", **A.Mirzaei**, E. Soroush, 9ᵗʰ Iranian Conference on Machine Vision and Image Processing, IEEE, 2015

Computer Skills

- • Programming: C/C++, Matlab(Octave), OpenCV, Python
- • Engineering Softwares: ADS, Orcad(PSPICE)
- • Applications: Microsoft Word, Microsoft PowerPoint, Microsoft Visio
- • Operating system: Linux(Ubuntu User), Microsoft Windows

Teaching Experiences

- • Teacher Assistant : **'Statistics and Probability'** at Amirkabir University of Technology
  - o Instructor **:** Dr. Mohammadjavad Emadi

Work Experiences

- • Senior Computer Vision Engineer at Faraadid Co. since August 2014
  - o Programing: C++, Python, OpenCV
  - o Applications: Object Detection and Tracking
  - o CEO : Dr. Hadi Mahzarnia

Language

- • Persian: Native
- • English: Fluent

References

- • **Dr. Hamid Sheikhzadeh**
  - o Assistant Professor of Electrical Engineering Department, AUT.
  - o Ph.D.: University of Waterloo; Email: hsheikh@aut.ac.ir
- • **Dr. Yalda Mohsenzadeh**
  - o Current Position: Postdoctoral associate at McGovern Institute for Brain Research at Massachusetts Institute of Technology (MIT), Cambridge, MA, USA

- o Postdoctoral Researcher in the Visuomotor Neuroscience Lab, Center for Vision Research at York University, Toronto, Canada
- o Ph.D.: Amirkabir University of Technology, Email: yalda@mit.com
- **Dr. Yaser Norouzi**
  - o Assistant Professor of Electrical Engineering Department, AUT.
  - o Ph.D.: Sharif University of Technology; Email: y.norouzi@aut.ac.ir
- **Dr. MohammadJavad Emadi**
  - o Assistant Professor of Electrical Engineering Department, AUT.
  - o Ph.D.: Sharif University of Technology; Email: mj.emadi@aut.ac.ir
- **Dr. Gh. Moradi**
  - o Assistant Professor of Electrical Engineering Department, AUT.
  - o Ph.D.: Amirkabir University of Technology; Email: ghmoradi@aut.ac.ir
- **Dr. Hadi Mahzania**
  - o Phd. Student of Artificial Intelligence at Computer Engineering Department , AUT
  - o Email : mahzarnia@aut.ac.ir