

# Mehrdad Hosseinzadeh

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Computer Vision Lab.  
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## Education

### University of Manitoba

Ph.D., Computer Science, 2017–present.

Supervisor: Dr. Yang Wang

Concentration: Deep Learning/Computer Vision

G.P.A.: 4.25/4.5

### Shahid Bahonar University of Kerman

M.Sc., Computer Engineering, 2013–2015.

Supervisor: Dr. Mahdi Eftekhari

Concentration: Artificial Intelligence

G.P.A.: 18.80/20.00

### University of Birjand

B.Sc., Computer Engineering, 2009–2013.

Supervisor: Dr. Javad Sadri

Concentration: Software Engineering

G.P.A.: 17.05/20.00

## Research Interests

Machine Learning, Deep Learning, Language and Vision Understanding

## Publications

*Crowd Counting Using Scale-Aware Attention Networks*,  
Asiful Hossain, **Mehrdad Hosseinzadeh**, Omit Chanda, and Yang Wang,  
IEEE Winter Conference on Applications of Computer Vision (WACV), 2018

*Proposing ensemble learning algorithms based on fuzzy Methods for  
imbalanced classification*,

**Mehrdad Hosseinzadeh**, M.Sc. Thesis, 2015

*Improving rotation forest performance for imbalanced data classification  
through fuzzy clustering*, **Mehrdad Hosseinzadeh** and Mahdi Eftekhari,  
Artificial Intelligence and Signal Processing (AISP), 2015 International  
Symposium on. IEEE, 2015.

*Using fuzzy undersampling and fuzzy PCA to improve imbalanced classification  
through Rotation Forest algorithm*, **Mehrdad Hosseinzadeh** and Mahdi Eftekhari,  
Computer Science and Software Engineering (CSSE), 2015 International Symposium on.  
IEEE, 2015.

Teaching Experience	<b>Computer Science Department, University of Manitoba</b> Winnipeg, MB, Canada. Teaching Assistant, Programming Practices, 2017–present Teaching Assistant, Analysis of Algorithms and Data Structures, 2018–present Teaching Assistant, Data Structures and Algorithms, 2018–present
	<b>Information Technology Department, Kiasat Institute of Technology</b> Birjand, S. Khorasan, Iran. Instructor, Fundamentals of Web Developing, 2015 Instructor, International Computer Driving Licence – Basic, 2015 Instructor, International Computer Driving Licence – Advanced, 2015
	<b>Computer Engineering Department, S.B. University of Kerman</b> Kerman, Kerman, Iran. Teaching Assistant, Artificial Intelligence, 2014 Teaching Assistant, Soft Computing, 2014
	<b>Computer Engineering Department, University of Birjand</b> Birjand, S. Khorasan, Iran. Teaching Assistant, Multimedia Systems, 2013
Research and Work Experience	<b>Computer Vision Lab, University of Manitoba</b> Winnipeg, MB, Canada. <i>Research Assistant, Advised by Dr. Yang Wang, Jan. 2017–present</i> Computer Vision research, including multi-modal projects which involve learning and understanding from both vision (image/video) and text (description) modalities as well as more vision-oriented projects like crowd counting from camera images.
	<b>Two Hat Security</b> Kelowna, BC, Canada. <i>Research intern, Advised by Dr. Yang Wang and Brad Leitch, Jan. 2017–Sept. 2017</i> Funded by MITACS, as a Machine Learning research intern, I collaborated in CEASE.ai project which aims toward building a ML-based system to automatically find and filter out child sexual abuse materials from online resources. Press coverage: <a href="https://www.twohat.com/cease.ai/">https://www.twohat.com/cease.ai/</a> <a href="https://www.mitacs.ca/en/newsroom/media-coverage/ctv-news-winnipeg-u-m-students-working-prevent-child-sex-abuse-images">https://www.mitacs.ca/en/newsroom/media-coverage/ctv-news-winnipeg-u-m-students-working-prevent-child-sex-abuse-images</a>
	<b>Fuzzy Systems Lab, S.B. University of Kerman</b> Kerman, Kerman, Iran. <i>Research Assistant, Advised by Dr. Mahdi Eftekhari, Sept. 2013–Dec. 2015</i> Machine Learning research, with a focus of imbalanced classification using soft computing tools like Fuzzy Sets and Ensemble Learning paradigm. Imbalance classification topic is applicable to a wide variety of problems where data distribution varies across classes.

Awards and Scholarships	<b>International Graduate Student Scholarship</b> University of Manitoba, 2018
	<b>Robert Eby Graduate Student Scholarship in Computer Science</b> University of Manitoba , 2018
	<b>MITACS Accelerate Internship</b> MITACS, 2017
	<b>International Graduate Student Entrance Scholarship</b> University of Manitoba, 2017
	<b>Recognized Student (Top G.P.A) Award</b> S.B. University of Kerman, Class of 2015
	<b>Recognized Student (Top G.P.A) Award</b> University of Birjand, Class of 2013
Skills and Certifications	<b>Competition Winner</b> National Skill Competition (NSC), province-level, Web Developing field, 2012
	Scientific programming: Python, Matlab, R, and OPL Deep Learning platforms: PyTorch, Caffe, TensorFlow Machine Learning tools: KEEL, WEKA, and Clementine OO programming: C++/C# and Java Certified CIW Web Design Specialist International Computer Driving Licence
Miscellaneous Tasks	<b>Committee member</b> , Graduate Students' Representative in Department of Computer Science Award Committee, University of Manitoba, Sept. 2018 – present.
	<b>Volunteer</b> , Thirty-second Conference on Neural Information Processing Systems, (NeurIPS 2018), Montreal, December 2018.
	<b>Reviewer</b> , The 6 <sup>th</sup> Iranian joint congress on Fuzzy and Intelligent Systems 17 <sup>th</sup> conference on Fuzzy Systems and 15 <sup>th</sup> conference on Intelligent Systems), Jan. 2018.
	<b>Speaker</b> , “Using Deep Learning for Age Detection”, Protecting the Innocents Hackathon, Vancouver, Aug. 2017. <a href="https://www.twohat.com/hackathon-hopes-stop-online-child-exploitation/">https://www.twohat.com/hackathon-hopes-stop-online-child-exploitation/</a>
	<b>Project leader</b> , “Toward Building A Child Sexual Abuse Image Detector”, Protecting the Innocents Hackathon, Vancouver, Aug. 2017.
	<b>Conference registration coordinator</b> , First Iranian Conference on Pattern Recognition and Image Analysis (PRIA), Birjand, Iran, Mar. 2013.