Mehran Khodabandeh

3033 Beta Ave. Burnaby, BC Canada V5G 4M9

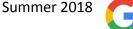
Email: mkhodaba [at] sfu [.] ca Tel: +1(778)680-0344

mkhodabandeh.github.io

» Research Experiences

Internship at Google Research, Seattle, WA

Worked on person segmentation in 360 images



• Developed a rotation equivariant and distortion aware convolutional layer for 360 images that can be applied directly on equirectangular images

Research Internship at D-Wave, Burnaby, Canada

Spring 2018



- Modeled domain adaptation for object detection as a noisy labelling approach
- Designed and developed a method for enabling object detectors (e.g. Faster R-CNN) to perform well in unseen environments
- Achieved state-of-the-art results on three public datasets. Paper got accepted to ICCV 2019

Research Internship at Microsoft, Redmond, WA

Summer 2017



- Worked on generation of realistic human action videos using generative models (GAN) for action recognition task
- Patented; and presented at CVPR Workshop 2018

Research Internship at National Institute of Informatics(NII), Tokyo, Japan Summer 2016 and 2015

Worked on active learning for structured data, implemented in Caffe (Python)



- Designed a novel criterion for selecting the most informative persons in a scene by computing the expected entropy change
- Designed an algorithm for embedding the supervoxels and learning a similarity metric that is used for video segmentation, under supervision of Prof. Shin'ichi Satoh. Presented the work at ICPR 2016 (oral)

» Education

Simon Fraser University, Burnaby, BC, Canada.
 Ph.D. in Computing Science (Computer Vision and Machine Learning)
 Thesis Supervisor: Dr. Greg Mori (http://www.cs.sfu.ca/~mori)

Sept 2015 – present

- Simon Fraser University, Burnaby, BC, Canada. Jan 2013 Jan 2015 Master of Science in Computing Science (Computer Vision and Machine Learning) GPA: A/A+ Supervisor: Dr. Greg Mori
- Sharif University of Technology, Tehran, Iran. Sept 2008 June 2012 Bachelor Degree in Computer Engineering (Hardware Engineering) GPA: 17.45/20

» Projects and Publications

• A Robust Learning Approach to Domain Adaptive Object Detection1 2019

ICCV 2019

(M. Khodabandeh, A. Vahdat, M. Ranjbar, W. G. Macready) https://arxiv.org/abs/1904.02361

Human Action Video Generation for Training Activity Recognition Models
 CVPR Workshop 2018

Mehran Khodabandeh

	(<u>M. Khodabandeh,</u> Hamidreza Vaezi Joze, Ilya Zarkhov, Vivek Pradeep) PDF	
	Distribution Aware Active Learning (A. Mehrjou, M. Khodabandeh, G. Mori) https://arxiv.org/abs/1805.08916	2018
	 Revisiting Active Learning: A Reinforcement Learning Approach (M. Khodabandeh, S. Muralidharan, F. Tung, and G. Mori) https://github.com/mkhodabandeh/rl-active 	2017
	 Active Learning for Structured Prediction from Partially Labelled Data. https://arxiv.org/abs/1706.02342 (M. Khodabandeh, M. Ibrahim, Z. Deng, S. Satoh, and G. Mori) 	2017
	 Unsupervised Learning of Supervoxel Embeddings for Video Segmentation. Presented at ICPR 2016 (Oral) (M. Khodabandeh, S. Muralidharan, A. Vahdat, N. Mehrasa, E.M. Pereira, S. Satoh, and G. https://github.com/mkhodabandeh/embedding_segmentation 	2016 <u>Mori</u>)
	 Discovering Human Interactions in Videos with Limited Data Labeling. Workshop on Group and Crowd Behavior Analysis and Understanding (at CVPR 2015) (M. Khodabandeh, A. Vahdat, GT. Zhou, H. Hajimirsadeghi, M. Roshtakhir, G. Mori, and S https://github.com/mkhodabandeh/interaction_discovery 	2015 . Se)
	 Strongest Path: A Cytoscape Plugin to Find The Most Confident Paths in Protein-Protein Interactions Networks. Submitted to Bioinformatics: Oxford Journal (impact factor 4.9) (Z. Mousavian, M. Khodabandeh, A. Sharifi Zarchi, A. Masoudi Nejad) http://apps.cytoscape.org/apps/strongestpath, https://github.com/strpaths/release Object Detection in Surveillance Video from Dense Trajectories. 	2015
	IAPR Conference on Machine Vision Applications (MVA 2015) (M. Zhai, L. Chen, <u>M. Khodabandeh</u> , J. Li, and <u>G. Mori</u>)	
>>>	Professional Experiences	
	 Research & Software Development (PickerDrones), Vancouver, Canada Nov 2016 - June 2017 Worked part time and was responsible for the vision section of the harvesting quadruples Developed and implemented real-time object detection algorithms for drones 	
	Research & Software Development, BasirTech Co, Tehran, Iran Jun – Sep	t 2010



- Under supervision of Dr. Hamid Mahini
- Developed a method for gender detection from frontal face images and achieved high accuracy

Software Development, Lithis, Tehran, Iran

Feb – Jul 2012

• Worked on the front-end of a social network for an online education system (Javascript, JQuery, CSS/HTML)

Web Development (Freelance)

2011 - 2012

• NoteShare - Created a website for sharing documents, using .NET

Mehran Khodabandeh

- MyTutor Created a website that matched students and tutors, using Python/Django
- Students Works Automation System (for Sharif University) Created a website for our university that automated registrations and reduced paper works, using Python/Django
- YSC Portal Designed a website for Young Scolar Club (Iran), using Python/Django

» Honors and Awards

•	Received Graduate Fellowship at Simon Fraser University (Canada)	2013 - 2017
•	Granted admission for Master of Science from Talented Students Office	
	of Sharif University of Technology (Iran)	Fall 2012
•	Ranked (248th) among top 0.1 percent in Iranian National University Entrance Exam	r Fall 2008
•	Semifinalist in National Olympiads of Informatics (Tehran, Iran)	Fall 2006