

# Amir Ghodrati

---

## Objectives

Working on new, cutting-edge topics in computer vision.

Finding an explanation to my big question: How does a human brain work?

Living in the moment.

---

## Educational Background

**Postdoc**, *QUVA deep vision lab, Faculty of Science, University of Amsterdam (UvA), Netherlands*, Advisor: Cees Snoek  
Project title: Video Translation.

2011  
2016

**PhD student**, *PSI, Department of Electrical Engineering (ESAT), KU Leuven, Leuven, Belgium*, Supervisor: Tinne Tuytelaars  
Thesis title: Exploiting Appearance-based Representations for Recognition.

2007  
2010

**MSc. in Artificial Intelligence**, *Department of Computer Engineering, Sharif University Of Technology, Tehran, Iran*, GPA: 17.91/20, Supervisor: Shohreh Kasaei  
Thesis title: Human Action Recognition Using Spatio-Temporal Local Features.

2003  
2007

**BSc. in Computer Software Engineering**, *Department of Computer Engineering, Amir kabir University Of Technology, Tehran, Iran*, GPA: 15.22/20, Supervisor: Hossein Pedram  
Thesis title: A study on periodic characteristic of TCP flows in frequency domain and simulating it in against of DoS attacks.

1999  
2003

**Diploma in Math and Physics**, *National Organization for Development of Exceptional Talents, Shahrood (NODET), Iran*, GPA: 18.89/20..

---

## Awards and Honors

- 2007 Ranked 10th in nationwide graduate entrance exam in Computer Engineering-Artificial Intelligence of Iranian Universities among 10,000 applicants.
- 2007 Finalist of 12th National Collegiate Scientific Olympiad in Computer Engineering.
- 2003 Ranked 240th in nationwide university entrance exam among 450,000 applicants for Engineering.

1996 & 1999 Selected to be taught at National Organization for Development of Exceptional Talents, Shahrood, Iran.

---

## Publications

Amir Ghodrati, Efstratios Gavves, and Cees GM Snoek. Video time: Properties, encoders and evaluation. In *BMVC*, 2018.

Kirill Gavriluk, Amir Ghodrati, Zhenyang Li, and Cees GM Snoek. Actor and action video segmentation from a sentence. In *CVPR*, 2018.

Amir Ghodrati, Ali Diba, Marco Pedersoli, Tinne Tuytelaars, and Luc Van Gool. Deepproposals: Hunting objects and actions by cascading deep convolutional layers. *IJCV*, 2017.

Roeland De Geest, Efstratios Gavves, Amir Ghodrati, Zhenyang Li, Cees Snoek, and Tinne Tuytelaars. Online action detection. In *ECCV*, 2016.

Amir Ghodrati, Xu Jia, Marco Pedersoli, and Tinne Tuytelaars. Towards automatic image editing: Learning to see another you. In *BMVC*, 2016.

Basura Fernando, Efstratios Gavves, José Oramas, Amir Ghodrati, and Tinne Tuytelaars. Rank pooling for action recognition. *TPAMI*, 2016.

Amir Ghodrati, Ali Diba, Marco Pedersoli, Tinne Tuytelaars, and Luc Van Gool. Deepproposal: Hunting objects by cascading deep convolutional layers. In *ICCV*, 2015.

Basura Fernando, Efstratios Gavves, Jose M Oramas, Amir Ghodrati, and Tinne Tuytelaars. Modeling video evolution for action recognition. In *CVPR*, 2015.

Amir Ghodrati, Xu Jia, Marco Pedersoli, and Tinne Tuytelaars. Swap retrieval: Retrieving images of cats when the query shows a dog. In *ICMR*, 2015.

Amir Ghodrati, Marco Pedersoli, and Tinne Tuytelaars. Is 2d information enough for viewpoint estimation?. In *BMVC*, 2014.

Amir Ghodrati, Marco Pedersoli, and Tinne Tuytelaars. Coupling video segmentation and action recognition. In *WACV*, 2014.

Amir Ghodrati and Shohreh Kasaei. Human action categorization using discriminative local spatio-temporal feature weighting. *Intelligent Data Analysis*, 2012.

---

## Research Experiences

2011-2016 PSI, ESAT, KU Leuven

During my PhD, I tackled different range of computer vision challenges including action recognition, viewpoint estimation, object/action proposal generation and image generation. During this period I published several papers in leading computer vision conferences like ICCV, CVPR, ECCV and BMVC.

2007-2010 Image Processing Laboratory (IPL), Sharif University of Technology  
During my master, I did many course projects including facial expressions recognition using supervised learning algorithms, face detection and recognition, image change detection, English character recognition using Self Organization Maps and solving "Traveling Merchant" problem using reinforcement learning.

2007-2010 Amir kabir University of Technology  
My research goal was to identify normal TCP traffic against denial of services attacks using spectral analysis of TCP packets round trip time.

---

## Professional Experiences

2010-2011 Designer and Developer, Samim Rayaneh Corp.  
We used plate detection, character segmentation and classification techniques for license plates recognition and velocity estimation.

2009-2010 Researcher, Research center of Amir kabir University  
We embedded a Real Time Operating System (RTOS) in an evaluation board and developed an application layer for control, handle and record data flows on the board.

---

## Teaching Experiences

2018 Lecturer in Information Lab course: Theory of convolutional neural networks.

2006-2016 Teacher Assistant in courses: Pattern Recognition and Image Understanding, Digital Video Processing, Artificial Intelligence, Technical Presentation.

2006 - 2009 Instructor of undergraduate courses like Theory of Formal Languages And Automata, Computer Architecture and Digital Design for applicant as individual education.

---

## Supervision

2015-2018 Several Master thesis supervision. some titles:  
"Weakly supervised object detection using text",  
"Generating bank transaction using generative adversarial networks",  
"Real-time speech emotion recognition using dilated convolutional networks".

---

## Skills

Languages Persian (Native), English (Fluent), Spanish (Familiar), Arabic (Familiar)  
Programming Python, MATLAB, C++, Lua, L<sup>A</sup>T<sub>E</sub>X  
Frameworks PyTorch, Torch, MatConvNet

---

## References

Cees Snoek, Professor, ISIS, University of Amsterdam, The Netherlands.  
✉ cgmsnoek@uva.nl

Tinne Tuytelaars, Professor, ESAT, KU Leuven, Belgium.

✉ [tinne.tuytelaars@esat.kuleuven.be](mailto:tinne.tuytelaars@esat.kuleuven.be)

Marco Pedersoli, Assistant Professor, École de technologie supérieur, Montreal, Canada.

✉ [marco.pedersoli@etsmtl.ca](mailto:marco.pedersoli@etsmtl.ca)