

# Omid Poursaeed

## Education

- 2015–Present **Ph.D.** Electrical and Computer Engineering, Cornell University & Cornell Tech, **GPA: 4.18/4.3**  
**Advisor:** Professor **Serge Belongie**  
**Courses:** Advanced Topics in Machine Learning, Computer Vision, Machine Learning for Data Science, Statistical Inference and Decision, Natural Language Processing (Audited), Linear Programming, Real Analysis
- 2010–2015 **B.S.** Sharif University of Technology, Tehran, Iran (Graduated with honors)  
MAJOR: Electrical Engineering, MINOR: Mathematics
- 2006–2010 Allameh Helli High School, Affiliated with the *National Organization for Development of Exceptional Talents (NODET)*

## Research Interests

- Deep Learning
- Machine Learning
- Computer Vision
- Generative Models

## Publications

- [1] Generative Adversarial Perturbations: CVPR 2018, Omid Poursaeed, Isay Katsman, Bicheng Gao and Serge Belongie
- [2] Deep Fundamental Matrix Estimation: *ECCV 2018, Geometry Meets Deep Learning Workshop*, Omid Poursaeed\*, Guandao Yang\*, Aditya Prakash, Hanqing Jiang, Qiuren Fang, Bharath Hariharan, Serge Belongie. (\*equal contribution)
- [3] Stacked Generative Adversarial Networks: CVPR 2017, Xun Huang, Yixuan Li, Omid Poursaeed, John Hopcroft and Serge Belongie
- [4] Vision-based Real Estate Price Estimation: *Journal of Machine Vision and Applications*, Omid Poursaeed, Tomas Matera and Serge Belongie
- [5] Analytical studies of fragmented-spectrum multi-level OFDM-CDMA technique in cognitive radio networks: IEEE Ubiquitous Computing, Electronics & Mobile Communication Conference (2016), Farhad Akhouni, Saeed Sharifi-Malvajardi, Omid Poursaeed and Jawad A. Salehi
- [6] Cognitive-engined spectrum-fragmented synchronous MC-CDMA based on generalized hadamard codes: *IEEE Wireless Communications and Networking Conference (WCNC 2015)*, M.H. Shoreh, M.J. Khojasteh, Omid Poursaeed and Jawad A. Salehi
- [7] Resource allocation using fragmented-spectrum synchronous OFDM-CDMA in cognitive radio networks: IEEE Workshop on Communication and Information Theory (IWCIT 2014), Farhad Akhouni, Omid Poursaeed and Jawad A. Salehi

## Experience

- September 2018 – Present Research Intern at **Facebook Research** under the supervision of *SerNam Lim*
- May 2018 – August 2018 Research Intern at **Adobe Research** under the supervision of *Vladimir Kim* and *Eli Schechtman*

- May 2017 – Research Intern at **eBay Research** under the supervision of *Shuai Zheng* and *Hadi Kiapour*  
August 2017
- Generative Modeling of Street-Fashion Imagery: Designed a model to effectively generate stock-quality images from street-fashion photos using Generative Adversarial Networks (patent pending)
- Dec. 2015 – Research Assistant at *SE(3) Computer Vision Group at Cornell Tech* under the supervision of  
Present Professor **Serge Belongie**
- Summer 2013 Research Assistant at Optical Networks Research Lab (ONRL) under the supervision of Professor  
– Fall 2014 Jawad Salehi (IEEE Fellow)

## Honors and Awards

- 2015 Awarded **Jacobs Fellowship** from Cornell University
- 2010 Ranked **12<sup>th</sup>** among more than 277,000 participants in the Nationwide Entrance Exam of Universities
- 2010 Ranked **9<sup>th</sup>** among more than 300,000 participants in the Azad University's Entrance Exam
- 2010-2014 Awarded Fellowship of the *National Foundation of Elites*
- 2007-2009 Accepted in the first round of National Mathematics and Computer Olympiads for three consecutive years
- 2008 Nominated for *Rouzbeh Prize* by the *Physics Society of Iran*
- 2008 Ranked **2<sup>nd</sup>** in the *Helli-Net* Programming Competitions
- 2003-2010 Member of the National Organization for Development of Exceptional Talents (NODET)

## Technical Skills

- Programming Python, Pytorch, TensorFlow, Torch7, Chainer, BVLC Caffe, Theano (Lasagne, Keras), the scientific Python stack (numpy/scipy, scikit-learn, scikit-image, etc), MATLAB, C/C++, HTML
- Platforms Linux/UNIX, Amazon Web Services (AWS), Google Cloud Platform, Amazon Mechanical Turk

## Presentations

- Sep. 2016 Deep Learning and Video, AOL Connected Experiences Workshop, Cornell Tech

## Advisees

- Jan. 2017 – Isay Katsman and Bicheng Gao: Generating Adversarial Examples for Fooling Deep Neural Networks  
Dec. 2017
- Sep. 2016 – Guandao Yang and Aditya Prakash: Deep Fundamental Matrix Estimation  
Dec. 2016
- July 2016 – Xiaoyan Wu: Recognition of Actions and Paths in Figure Skating  
Dec. 2016

## Teaching Experience

Teaching Assistant: Data Communication Networks (Graduate Course), Digital Signal Processing, Communication Systems, Logic Circuits & Digital Systems, Engineering Mathematics, Circuit Theory

## Graduate Record Examination

GRE Revised General Test:

Quantitative Reasoning: **170/170 (98%)**, Verbal Reasoning: 158/170 (78%)

## English Language Proficiency

TOEFL iBT: **112/120** - Reading: 30/30, Listening: 28/30, Speaking: 26/30, Writing: 28/30