

# Sajjad Torabian

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Current Position      Ph.D. Student in Cognitive Neuroscience, Visual Perception and Neuroimaging Lab,  
Department of Cognitive Sciences, University of California, Irvine

Contact      [torabias@uci.edu](mailto:torabias@uci.edu)

Research Interests      Social Cognition, Motion Perception, Machine Learning

Education & Professional Appointments      **University of California Irvine**, CA, USA      September 2019 - Present

Ph.D. Student, Department of Cognitive Sciences

**Stanford University**, CA, USA      May 2017 - May 2018

Research Assistant, Department of Psychology

**University of Louisville**, KY, USA      August 2015 - May 2017

M.Sc., Computer Science and Engineering Department

- GPA: 3.936 out of 4

**University of Tehran**, Tehran, Iran      September 2009 - January 2015

B.Sc., Department of Electrical and Computer Engineering

Research Experience      Dept. of Cognitive Sciences, UC Irvine      September 2019 - Present

Grad. Researcher, **Visual Perception and Neuroimaging Lab**

Advisor: Prof. Emily Grossman

Dept. of Psychology, Stanford University      May 2017 - May 2018

Research Assistant, **Social Learning Lab**

- Developed an fMRI pipeline in collaboration with Stanford Center for Reproducible Neuroscience
- Made pipelines executable on Stanford's research computing cluster (Sherlock):

<https://github.com/sajjadtorabian/StanfordSherlockfMRIGuide/wiki>

Supervisor: Prof. Hyowon Gweon

Dept. of Psychological and Brain Sciences, Univ. of Louisville      Fall 2016 - Spring 2017

Grad. Researcher, **Neuroimaging Laboratory of Cognitive Affective and Motoric Processes**

- Used MVPA to decode fMRI responses to fear and anxiety

Advisor: Prof. Brendan Depue

Dept. of Computer Science and Engineering, Univ. of Louisville      Spring 2015 - April 2017

Grad. Researcher, **Cyber Security Laboratory**

Supervisor: Prof. Roman Yampolskiy

Dept. of Computer Science and Engineering, Univ. of Louisville      July 2013 - September 2013

Research Intern, **Cyber Security Laboratory**

- Developed audio CAPTCHAs
- Work recognized in a spotlight on CECS department homepage

Supervisor: Prof. Roman Yampolskiy

Dept. of Electrical and Computer Engineering, Univ. of Tehran January 2012 - June 2013

Undergrad. Researcher, **Artificial Intelligence and Robotics Laboratory**

Supervisor: Prof. Hadi Moradi

Dept. of Electrical and Computer Engineering, Univ. of Tehran January 2011 - June 2013

RoboCup Team Member

- 3D soccer simulation with humanoid robot NAO

Dept. of Electrical and Computer Engineering, Univ. of Tehran Fall 2009 - Fall 2011

Game Team Leader

- Developed 3D games with Microsoft DirectX
- Taught computer graphics fundamentals and DirectX to undergraduate students, Spring 2011

## Teaching Experience

University of California Irvine

Teaching Assistant, **Psychology Fundamentals**

Winter 2020

Instructor: Prof. Michael D'Zmura

Teaching Assistant, **Psychology Fundamentals**

Fall 2019

Instructor: Prof. Donald Hoffman

University of Louisville

Teaching Assistant, **Intro to Programming Languages**

Fall 2015 - Spring 2017

Instructor: Prof. Roman Yampolskiy

University of Tehran

Teaching Assistant, **Discrete Mathematics**

January 2013 - June 2013

Instructor: Prof. Siamak Mohammadi

Roazbeh Institute

Pre-University Teacher, Discrete Mathematics

Spring 2012

Middle School Teacher, Geometry

Spring 2012

Middle School Teacher, Discrete Mathematics

Fall 2011

High School Teacher, C++ Programming

Fall 2011

Middle School Teacher, Introduction to Information Technology

Fall 2009 - Spring 2011

## Honors & Awards

Graduate Dean's **Recruitment Fellowship**, University of California Irvine (Spring 2019)

- Made to exceptional students admitted into graduate programs at UC Irvine

CECS **Master of Science Award**, University of Louisville (April 2017)

- Annual top student award

**Merit Scholar Award**, University of Louisville (Fall 2015 - Spring 2017)

CECS Department Scholarship, University of Louisville (Spring 2016)

International Center Scholarship, University of Louisville (Spring 2016, Fall 2016)

Alumni Association of Faculty of Engineering Scholarship, University of Tehran (Spring 2013)

Ranked 314<sup>th</sup> among 87,000 applicants in National Universities Entrance Exam (2009)

Software	PyMVPA BIDS-App: A reproducible fMRI pipeline for MultiVariate Pattern Analysis <ul style="list-style-type: none"> <li>• <a href="https://github.com/BIDS-Apps/PyMVPA">https://github.com/BIDS-Apps/PyMVPA</a></li> </ul>
Publications	<p><b>Torabian, S.</b> Using a MultiVariate Pattern Analysis (MVPA) approach to decode fMRI responses to fear and anxiety. 2017</p> <ul style="list-style-type: none"> <li>• <i>Master's Thesis</i></li> </ul> <p><b>S. Torabian</b>, S. HoseinAlipour, A. Mirzargar, and M. Tavakkolian. Improving the Localization of Humanoid Soccer Robots in Specified Fields: A Neural Network Approach. <i>RSI/ISM International Conference on Robotics and Mechatronics (ICRoM)</i>, Tehran, Iran, 2013</p>
Invited Talks	<p><b>S. Torabian.</b> From Genes To Cognition. Amirkabir Artificial Intelligence Summer Summit, Amirkabir University of Technology, July 2019</p> <p><b>S. Torabian.</b> MultiVariate Pattern Analysis. Deep Learning Summer School, University of Tehran, August 2018</p> <p><b>S. Torabian.</b> How to study the Mind: Monolithic or Modular? Stanford University Graduate Community Center, November 2017</p>
Conference Presentations	<p><b>S. Torabian</b>, S. HoseinAlipour, A. Mirzargar, and M. Tavakkolian. Improving the Localization of Humanoid Soccer Robots in Specified Fields: A Neural Network Approach. Talk presented at the International Conference on Robotics and Mechatronics, Tehran, Iran, February 2013</p>
Workshops Organized	<p>How to Apply, University of Tehran, Tehran, Iran, October 4, 2018</p> <ul style="list-style-type: none"> <li>• <i>Assisted students in graduate school applications</i></li> </ul> <p>How to Apply, Tehran, Iran, July 25, August 29, September 12, November 7, 2018, January 11, &amp; February 15, 2019</p> <p>International Internship, Student Scientific Research Center, Tehran University of Medical Sciences, Tehran, Iran, November 22 &amp; December 20, 2014</p>
Computer Skills	<p><i>Programming Tools and Languages:</i> Python, Bash, C, C++, Java, R, Matlab, HTML</p> <p><i>Neuroimaging Tools:</i> PyMVPA, BrainVoyager, FSL, NeuroDebian, NeuroElf</p> <p><i>Operating Systems:</i> Linux, Mac, Windows</p> <p><i>High Performance Computing (HPC)</i></p> <p><i>Other:</i> Docker, Singularity, CircleCI</p>
Volunteer Experience	<p>Vice President at Organization Assisting and Serving International Students (OASIS), Fall 2016</p> <p>Officer at Iranian Student Organization, University of Louisville, Fall 2015 - Spring 2017</p>
Sport	<p>Second-rate certificate from Life Saving and Diving Federation, Tehran, Iran</p> <p>Swimming coach at Manzariyeh Camp, Tehran, Iran, Summers 2009, 2010, &amp; 2011</p>

Music & Performances	<p>Playing Santoor (Iranian instrument) since Summer 2009</p> <p>Concertino for Santoor &amp; Orchestra (by Hossein Dehlavi), Margaret Comstock Concert Hall, Univ. of Louisville School of Music, April 21 2017</p> <ul style="list-style-type: none"> <li>• <a href="https://www.youtube.com/watch?v=J9WZBtXJioM">https://www.youtube.com/watch?v=J9WZBtXJioM</a></li> </ul> <p>Solo Concert, Malcolm Bird Hall, Univ. of Louisville School of Music, March 10 2016</p> <ul style="list-style-type: none"> <li>• <a href="https://www.youtube.com/watch?v=TV8OYrYQxTE">https://www.youtube.com/watch?v=TV8OYrYQxTE</a></li> </ul> <p>Concert at Univ. of Tehran commencement ceremony, Olympic Hotel, Tehran, Iran, Fall 2014</p> <p>Concert at Estandegan celebration, Univ. of Science &amp; Culture, Tehran, Iran, Spring 2013</p> <p>Concert at Eidaneh celebration, Univ. of Tehran, Tehran, Iran, Spring 2013</p>
Languages	<p>English: Fluent</p> <p>Spanish: Intermediate (Follow me on <a href="http://www.duolingo.com/sajjadtorabian">www.duolingo.com/sajjadtorabian</a>)</p> <p>Arabic: Intermediate</p> <p>Persian: Native Language</p>
Online Courses Completed	<p>Know Thyself - The Value and Limits of Self-Knowledge: The Unconscious, Coursera, July 2019</p> <p>Know Thyself - The Value and Limits of Self-Knowledge: The Examined Life, Coursera, May 2019</p> <p>Soul Beliefs: Causes and Consequences - Unit 3: How Does It All End?, Coursera, May 2019</p> <p>Soul Beliefs: Causes and Consequences - Unit 2: Belief Systems, Coursera, May 2019</p> <p>Soul Beliefs: Causes and Consequences - Unit 1: Historical Foundations, Coursera, May 2019</p> <p>Miracles of Human Language: An Introduction to Linguistics, Coursera, April 2019</p> <p>Philosophy and the Sciences: Introduction to the Philosophy of Cognitive Sciences, Coursera, April 2019</p> <p>Philosophy and the Sciences: Introduction to the Philosophy of Physical Sciences, Coursera, March 2019</p>
Other Interests	<p>Consciousness, Story of Civilization, Theory of Music, Persian Music, Mysticism, Ethics, Philosophy of Science, Philosophy of Religion</p>
References	<p><b>Prof. Emily Grossman</b>, Professor, Department of Cognitive Sciences, University of California Irvine, CA, US. Email: <a href="mailto:grossman@uci.edu">grossman@uci.edu</a></p> <p><b>Prof. Hyowon Gweon</b>, Assistant Professor, Department of Psychology, Stanford University, CA, US. Email: <a href="mailto:hyo@stanford.edu">hyo@stanford.edu</a></p> <p><b>Prof. Brendan Depue</b>, Assistant Professor, Department of Psychological and Brain Sciences, University of Louisville, KY, US. Email: <a href="mailto:brendan.depue@louisville.edu">brendan.depue@louisville.edu</a></p>