

Amir H. Dehqan

Address (Work):

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Tehran,Iran

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Address (Home):

No. 2, Hijrat Ave,
Payambar markazi Ave,
Sattari Highway,
Tehran,Iran

Education:

Iran University of Medical Sciences (IUMS)

- ◆ MD
- ◆ Dissertation on “Reversibility of smell function after 3, 4, 5 and 6 months in COVID-19, diagnosed patients with smell loss”

Tehran, Iran
2015-Present

Research:

Internships:

Sharif University of Technology (SUT)

- ◆ Research Intern on Deep Learning, Dr. Rabiee’s Lab
- ◆ Accepted a Nature’s Springer chapter book
- ◆ Ongoing project: Detecting emotional attention via EEG using deeplearning

Tehran, Iran
2020-Present

Institute for Research in Fundamental Sciences (IPM)

- ◆ Research Intern on Olfaction Neuroscience, Dr. Moein’s Lab
- ◆ Submitted papers:
 - A Persian Adaptation of the University of Pennsylvania Smell Identification Test
 - A Modified Version of NHANES Olfactory Test For COVID-19 Screening Using Machine Learning

Tehran, Iran
2017-Present

Publications:

- ◆ Behnamnia, A, **Dehqan, A. H.**, Rabiee, H. R., (2021), Detecting Emotional Attention of an Image Using EEG. (ongoing project)
- ◆ Doty, R. L., Moein, Sh. T., , **Dehqan, A. H.**, Moradi-lakeh, M., (2021), Does Olfactory Training Improves Smell Dysfunction? A Systematic Review and Meta-Analysis. (ongoing project)
- ◆ **Dehqan, A. H.**, Moein, Sh. T., Doty, R. L., (2021) “A Modified Version of NHANES Olfactory Test For COVID-19 Screening Using Machine Learning” (submitted to *Scientific Reports*, Under Review)
- ◆ Moein, Sh. T., **Dehqan, A. H.**, Doty, R. L., (2021) “A Persian Adaptation of the University of Pennsylvania Smell Identification Test” (submitted to *Physiology & Behavior*, Under Review).
- ◆ Ghavami Modegh, R, Salimi, A, Ilami, A, **Dehqan, A. H.**, Dashti, H, Haghjooy Javanmard, Sh, Ghenaati, H., Rabiee, R. H., (2021), “Healthcare Technology Solutions for Pandemics – A Roadmap”, **Nature Springer’s chapter book** (Accepted Manuscript)
- ◆ Shima T. Moein, **Amir H. Dehqan**, Richard L. Doty. A Culture-Specific Revision of the University of Pennsylvania Smell Identification Test for the Persian Speaking Population. International Symposium of Olfaction and Taste (ISOT), USA, Aug 3-7 2020. (presentation)
- ◆ Shima T. Moein, **Amir H. Dehqan**, Richard L. Doty. University of Pennsylvania Smell Identification Test and the Iranian Population: 70% of the Odorants are Correctly Identified. Poster presentation at 7th Basic and Clinical Neuroscience Conference, Tehran, Iran, Dec 2018. (presentation)

- ◆ “Recent Advances of Artificial Intelligence on Neuroscience”, Sadra Neuroscience Association Summer School, Iran University of Medical Sciences, June 2021, Tehran, Iran. *(Invited Talk)*

Skills and Proficiencies:

- ◆ Programming: Python, Pytorch, Matplotlib, Numpy, Pandas, SQL, MATLAB, SPSS
- ◆ Psychophysics: Experienced in designing experiments for humans and rat.
- ◆ Experienced with interventional experiments with human and rat.
- ◆ Machine Learning:
 - Experienced in Conventional Methods:
 - Regression (linear and non-linear)
 - Classification (KNN, SVM, ...)
 - Clustering (KMeans, DBSCAN, ...)
 - Recommender Systems
 - Computer Vision:
 - CNNs, GANs, VAEs, Transformers
- ◆ Machine Learning: Basic knowledge of NLP, GNNs, Reinforcement Learning
- ◆ Theoretical Neuroimaging and fMRI Analysis Using SPM
- ◆ Required applications of scientific writing (Endnote, Mendeley, ...)
- ◆ Language:
 - English: Intermediate (Fluent in Reading, Writing and Listening)
 - Persian: Native

Teaching and Mentoring Experience:

Iran University of Medical Sciences (IUMS) and Institute for Research in Fundamental Sciences (IPM)

- ◆ Head Leader of Teaching Assistant Team, Eight-Week Workshop
3rd Cognitive Neuroscience Competitions for Students (CNCS) Tehran, Iran
Dec 2020

Iran University of Medical Sciences (IUMS), Medical Students Research Center

- ◆ Mentor of Three Medical Research Methodology Groups
(for training medical students), Each Four-Week Workshop Tehran, Iran
2017-2019

Iran University of Medical Sciences (IUMS), Medical Students Research Center

- ◆ Teaching “Different Methods on Interventional Studies”,
2-hour Workshop, 52nd Students’ Workshop on Research Methods Tehran, Iran
Dec-2019

Training: Courses, Schools and Workshops:

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| “Computational Neuroscience” International Summer School by Neuromatch Academy | July 2020 |
| “fMRI Analysis”, 10-hour Workshop, Institute for Research in Fundamental Sciences (IPM) | June 2019 |
| “Data Analysis With SPSS”, 12-hour Workshop, Medical Students’ Research Center,
Iran University of Medical Sciences (IUMS) | June 2017 |
| “How To Write A Systematic Review”, 8-hour Workshop, Medical Students’ Research Center,
Iran University of Medical Sciences (IUMS) | May 2017 |
| “Scientific Writing”, 12-hour Workshop, Medical Students’ Research Center,
Iran University of Medical Sciences (IUMS) | February 2017 |

“Neuroscience and Neuroimaging Specialization” By John Hopkins University
 “Deep Learning Specialization” By DeepLearning.AI
 “Generative Adversarial Networks (GANs) Specialization” By DeepLearning.AI
 “Natural Language Processing (NLP) Specialization” By DeepLearning.AI
 “Probabilistic Graphical Models” By Stanford University
 “Machine Learning” By Stanford University
 “Linear Algebra” By Gilbert Strang at MIT OpenCourseWare
 “CS231N: Convolutional Neural Networks for Visual Recognition” At Stanford University
 “CS224n: Natural Language Processing with Deep Learning” At Stanford University
 “Machine Learning” By Maktabkhooneh
 “MATLAB for Neuroscientists”

Professional and Community Experiences and Leaderships:

- 3rd Cognitive Neuroscience Competitions for Students (CNCS)
 - **(Executive Member**, Dec 2020 to Feb. 2021, Tehran, Iran)
- Student member of **curriculum-designing-team** of first [National-Wide] optional university courses entitled “Computational Neuroscience [2 units] and Computational Psychiatry [2 units]”
 - at Iran University of Medical Sciences (IUMS), Tehran, Iran. (2019-2020)
- 1st Iranian Health Hackaton (H++)
 - **(Executive Member**, Feb. to March 2018, Tehran, Iran)
- 2nd TOYS Event, Entrepreneurship Summer School
 - **(Executive Member**, August 2017, Tehran, Iran)
- 2nd Cognitive Neuroscience School
 - **(Executive Member**, July 2017, Tehran, Iran)
- Iran’s BrainBee Competition
 - **(Executive Member**, July 2017, Tehran, Iran)
- Iranian Red Crescent
 - **(Head Executive member** of Student Branch, July 2017 to Sep. 2017, Tehran, Iran)
- **Lectures** on Different Neuroscience and Artificial Intelligence Topics for Young Students