Mahdiyeh Khanbagi

Curriculum Vitae

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Education

2017 - 2020 M.Sc. in Developmental Biology, Brain & Cognitive Sciences Department, Royan Institute, Tehran, Iran

- Thesis Title: Studying Cognitive and Neuroimaging Biomarkers of Alzheimer's Disease for Early Detection of Cognitive Impairment using Artificial Intelligence

  Supervisor: Dr. Seyed-Mahdi Khaligh-Razavi

2012 - 2017 B.Sc. in Cell & Molecular Biology, University of Tehran, Tehran, Iran

2008 - 2012 High School Diploma in Life Sciences, National Institute for Development of Exceptional Talents (NODET) - Farzanegan High School, Tehran, Iran

Research Experiences

2017 - 2022 Graduate Research Assistant at the Brain and Cognitive Sciences Department, Royan Institute, Tehran, Iran

- Attending Projects Concerning:
  1. Digital Cognitive Assessment and Virtual Reality (VR)-based Cognitive Rehabilitation in Patients with Multiple Sclerosis (MS)

  2. Fluid Biomarkers of Neurodegeneration

  Supervisor: Dr. Seyed-Mahdi Khaligh-Razavi

Professional Experiences

Sep 2022 - Present Remote Data Science Intern at Cognetivity Ltd., UK

Jan 2022 - Present Co-founder of Ravieh Parenting Narratives

Feb 2021 - Sep 2021 Project Manager and Coordinator at Neuronio Clinic

Dec 2017 - Jun 2018 Scientific Secretary of 9th International Summer School on Brain & Cognitive Sciences

Sep 2014 - Sep 2017 Charity Director of Alumni Association of Farzanegan High School (NODET)

Teaching Experiences

Sep 2015 - Dec 2016 Teaching Assistant in Mendelian & Molecular Genetics, Faculty of Biology, University of Tehran (Instructors: Dr. Elaheh Elahi)

Publications

Journal Articles

- Karimi H, Marefat H, **Khanbagi M**, Kalafatis C, Modarres H, Vahabi Z, Khaligh-Razavi SM, Temporal Dynamics of Animacy Categorization in the brain of Patients with Mild Cognitive Impairment. PLoS ONE (2021) [Link]

- Kalafatis C, Modarres H, Apostolou P, Marefat H, **Khanbagi M**, Karimi H, Vahabi Z, Aarsland D, Khaligh-Razavi SM, Validity and Cultural Generalizability of a 5-min AI-based, Computerized Cognitive Assessment in Mild Cognitive Impairment and Alzheimer's Dementia, Frontiers in Psychiatry | Aging Psychiatry (2021) [Link]

- Karimi H, Marefat H, **Khanbagi M**, Karami A, Vahabi Z, Drift Diffusion Model Can Detect Patients with Cognitive Impairment, Frontiers in Biomedical Technologies (2020)

- Khaligh-Razavi SM, Sadeghi M, **Khanbagi M**, Kalafatis C, Nabavi SM. A Self-Administered, Artificial Intelligence Platform for Cognitive Assessment in Multiple Sclerosis (MS) BMC Neurol. **20**, 193 (2020) [Link]

- Khaligh-Razavi S-M, Habibi S, Sadeghi M, Marefat H, **Khanbagi M**, Nabavi SM, et al. Integrated Cognitive Assessment: Speed and Accuracy of Visual Processing as a Reliable Proxy to Cognitive Performance. Sci Rep. **9**, 1102 (2019) [Link]

Conference Abstract

- Marefat H, Ebrahiminia F, **Khanbagi M**, Karimi H, Modarres H, Kalafatis C, Khaligh-Razavi SM, How Animacy Processing is Affected in Early Stages of AD?, Alzheimer Association Annual Conference | AAIC (2021) [Link]

- Aghaei M**,** Modarres H, Vahabi Z, Kalafatis C, Marefat H, **Khanbagi M**, sKarimi H, Khaligh-Razavi SM, Association between a Computerized, Self-administered Cognitive Assessment and Fluid Biomarkers of Neurodegeneration, Clinical Trials on Alzheimer's Disease Conference (CTAD 2021) [Link]

- **Khanbagi M**, Marefat H, Karimi H, Kalafatis C, Vahabi Z, Khaligh-Razavi SM, Association between Integrated Cognitive Assessment (ICA) and Measures of Brain Structure in Mild Cognitive Impairment and Mild Alzheimer's Disease**,** Alzheimer Association Annual Conference (AAIC 2020) [Link]

- Karimi H, Marefat H, **Khanbagi M**, Kalafatis C, Vahabi Z, Khaligh-Razavi SM, Electroencephalography (EEG) reveals a decrease in speed of animacy processing in mild cognitive impairment and an alteration in neural response patterns, Alzheimer Association Annual Conference (AAIC 2020) [Link]

- Kalafatis C, Modarres MH, Marefat H, **Khanbagi M**, Karimi H, Vahabi Z, Khaligh-Razavi SM, Employing Artificial Intelligence in the Development of a Self-Administered, Computerized Cognitive Assessment for the Assessment of Neurodegeneration, Alzheimer's & Dementia, July 2019 [Link]

- Marefat H, Karimi H, **Khanbagi M**, Kalafatis C, Vahabi Z, Khaligh-Razavi SM. Neural Speed of Visual Information Processing is Delayed in Early Stages of Alzheimer's Disease. Alzheimer's Society Annual Conference (ASAC 2019) [Link]

- Khaligh-Razavi SM, Modarres H, Marefat H, Karimi H, **Khanbagi M**, Kalafatis C, Vahabi Z. Artificial Intelligence (AI)-Based Cognitive Assessment Tool for Early Diagnosis of AD. Alzheimer's Research UK (ARUK 2019) [Link]

- Karimi H, Marefat H, **Khanbagi M**, Vahabi Z, Khaligh-Razavi SM, Task-based EEG for Detection of Patients with Mild Cognitive Impairment, The 3rd Iranian Symposium on Brain Mapping Updates (ISBM 2019)

- Khaligh-Razavi SM, Sadeghi M, **Khanbagi M**, Kalafatis C, Nabavi SM. Using ICA —an artificial intelligence (AI)-assisted technology— as a digital biomarker of MS disease progression and treatment efficacy. 35th Congress of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS 2019) [Link]

- Sadeghi M, Daemi M, Khaligh-Razavi SM, Tabasi SM, **Khanbagi M**, Nabavi SM, Kordi MR, Virtual Reality(VR)-Based Cognitive Rehabilitation: Cognitive games are complementary to physical training for an optimum rehabilitation strategy in patients with Multiple Sclerosis (MS), 35th Congress of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS 2019), Oral Presentation [Link]

- Khaligh-Razavi SM, Sadeghi M, **Khanbagi M**, Kalafatis C, Nabavi SM. A Brief Language-Independent and Self-Administered Computerized Test for Cognitive Assessment in Multiple Sclerosis (MS). 34th Congress of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS 2018) [Link]

Honors & Awards

- Best Dissertation Award of the Academic Year, Royan Institute | 2021

- Second Best Paper in the Iranian Symposium on Brain Mapping Updates (ISBM 2019)

- Rank 1st by GPA among Master Students in Royan | Class 2017

- Rank 5th in the National Entrance Exam of Master Studies | 2017 Entry

- Awarded a Fully Funded Internship Position by IAESTE Germany | 2017
  (Ref No. DE-2017-1201-5)

Computer Skills

- Python (Pandas)**,** MATLAB, Linux & Bash Scripting, FreeSurfer, SPM, R, HTML, CSS

Interests & Activities

- Talking to People, Baking Sourdough, Photography, Traveling