

Ali Fathi Jouzdani; MD

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EDUCATION

M.D: School of Medicine, Hamedan University of Medical Sciences, Hamadan, Iran. (2017- 2023). GPA: 3.17/4

- ***Medical Internships: School of Medicine, Hamadan University of Medical Sciences, Hamadan, Iran. (June 2023- June 2024). GPA: 3.5/4***
- ***Medical Internships: School of Medicine, Tehran University of Medical Sciences, Tehran, Iran. (June 2024- Dec 2024). GPA: 3.7/4***

Comprehensive Data Science Specialization, Professional Training Center, University of Tehran, Tehran, Iran. (2021-2022)- Grade: A

High School: Allame Helli 1, Tehran (SAMPAD/NODET) Diploma's Degree, Experimental Sciences (2013-2017)

PUBLICATIONS

❖ Scientific Research Articles

1. Alizamir T, **Jouzdani AF**, Attari F, Arab L, Ashaari Z, Komaki A, Hassanzadeh G. ***Alterations in Apoptotic Pathways and Expression of miR-134, miR-181, and miR-497 Induced by Wharton's Jelly-Derived Mesenchymal Stem Cells in a Rat Model of Ischemic Brain Injury.*** IBRO Neuroscience Reports. 2025 Apr 28.
2. Salmanpour MR, Gorji A, Mousavi A, **Fathi Jouzdani A**, Sanati N, Maghsudi M, Leung B, Ho C, Yuan R, Rahmim A. ***Enhanced Lung Cancer Survival Prediction Using Semi-Supervised Pseudo-Labeling and Learning from Diverse PET/CT Datasets.*** Cancers. 2025 Jan 17;17(2):285.
3. Pishjoo M, Safdari M, Safdari Z, Ghaemi M, Kheradmand D, **Jouzdani AF**, Saghbdoost S. ***Isolated Mega Cisterna Magna: A Preliminary Study from Eastern Iran.*** Asian Journal of Neurosurgery. 2025 Jan 17.
4. Mahmoudian S, Jouzdani AF, Nazeri A, Bagherian K, Beiranvand M, Akbarnejad Z. ***Alterations in Neuroligin-2 and BDNF proteins associated with anxiety-like behavior in salicylate-induced tinnitus rats.*** IBRO Neuroscience Reports. 2024 Dec 1;17:407-14.
5. Sabahi M, Fathi Jouzdani A, Sadeghian Z, Dabbagh Ohadi MA, Sultan H, Salehipour A,

- Maniakhina L, Rezaei N, Adada B, Mansouri A, Borghei-Razavi H. *CAR-engineered NK cells versus CAR T cells in treatment of glioblastoma; strength and flaws*. Journal of neuro-oncology. 2024 Nov 13:1-36.
6. Gorji A, Fathi Jouzdani A. *Machine learning for predicting cognitive decline within five years in Parkinson's disease: Comparing cognitive assessment scales with DAT SPECT and clinical biomarkers*. Plos one. 2024 Jul 17;19(7):e0304355.
7. Mohammadi S, Ghaderi S, Jouzdani AF, Azinkhah I, Alibabaei S, Azami M, Omrani V. *Differentiation Between High-Grade Glioma and Brain Metastasis Using Cerebral Perfusion-Related Parameters (Cerebral Blood Volume and Cerebral Blood Flow): A Systematic Review and Meta-Analysis of Perfusion-weighted MRI Techniques*. Journal of Magnetic Resonance Imaging.
8. Arman Gorji, Ali Fathi Jouzdani, *PerPsych: An iPadOS-based open-source neuropsychological software for time perception assessment*, MethodsX, Volume 12,2024,102504, ISSN 2215-0161,<https://doi.org/10.1016/j.mex.2023.102504>.
9. Ekhtiari H, Khojasteh Zonoozi A, Rafei P, Abolghasemi FS, Pemstein D, Abdelgawad T, Achab S, Ghafri HA, Al'Absi M, Bisch M, Conti AA, **Jouzdani AF**. *World addiction medicine reports: formation of the International Society of Addiction Medicine Global Expert Network (ISAM-GEN) and its global surveys*. Frontiers in Psychiatry. 2024 Mar 11;15:1230318.
10. Sangchooli A, Zare-Bidoky M, **Jouzdani AF**, Schacht J, Bjork JM, Claus ED, Prisciandaro JJ, Wilson SJ, Wüstenberg T, Potvin S, Ahmadi P. Parameter Space and *Potential for Biomarker Development in 25 Years of fMRI Drug Cue Reactivity: A Systematic Review*. JAMA psychiatry. 2024 Feb 7.
11. Hosseinzadeh, Mahdi, Arman Gorji, **Ali Fathi Jouzdani**, Seyed Masoud Rezaeijo, Arman Rahmim, and Mohammad R. Salmanpour. "*Prediction of Cognitive Decline in Parkinson's Disease Using Clinical and DAT SPECT Imaging Features, and Hybrid Machine Learning Systems*." Diagnostics 13, no. 10 (2023): 1691.
12. Rahimibashar F, Sedighi L, Shahriary A, Reiner Ž, Pourhoseingholi MA, Mirmomeni G, **Jouzdani AF**, Vahedian-Azimi A, Jamialahmadi T, Sahebkar A. *Is there any association between plasma lipid profile and severity of COVID-19?*. Clinical Nutrition ESPEN. 2022 Apr 28.
13. Rahimi-Bashar F, Salesi M, Gohari-Moghadam K, **Jouzdani AF**, Pourhoseingholi MA, Vahedian-Azimi A. *Assessment of 5-year outcomes of life satisfaction in survivors after rehabilitation programs: a multicenter clinical trial*. Scientific Reports. 2022;12(1):1497.
14. Shamsizadeh M, **Fathi Jouzdani A**, Rahimi-Bashar F. *Incidence and Risk Factors of Ventilator-Associated Pneumonia among Patients with Delirium in the Intensive Care Unit: A Prospective Observational Study*. Critical Care Research and Practice. 2022.
15. **Jouzdani AF**, Ganjirad Z, Firozian F, Soliemani-Asl S, Ranjbar A. *Protective effects of N-acetylcysteine niosome nanoparticles on paraquat-induced nephrotoxicity in male rats*. Pharmaceutical Nanotechnology. 2022 Feb.
16. Samim, A., Vahedian-Azimi, A., **Fathi Jouzdani, A.** et al. *Effect of specific training course for competency in professional oral hygiene care in the intensive care unit: a quasiexperimental study for developing a standardized learning curve*. BMC Anesthesiol 22, 171 (2022).

17. Bagheri Z, Larki-Harchegani A, Pourmoslemi S, Nili-Ahmadabadi A, Bakhtiari E, Safarpour H, **Fathi Jouzdani A**, Shamsizadeh M. *The Antimicrobial and Healing Effect of Scrophularia striata Boiss Hydroalcoholic Extract on First-and Second-Grade Pressure Wounds in Patients with Brain and Spinal Cord Injury: A Randomized Clinical Trial*. Evidence-Based Complementary and Alternative Medicine. 2022 Nov 28;2022.
18. Daneshvar A, **Jouzdani AF**, Firozian F, Asl SS, Mohammadi M, Ranjbar A. *Neuroprotective effects of crocin and crocin-loaded niosomes against the paraquat-induced oxidative brain damage in rats*. Open Life Sciences. 2022 Jan 1;17(1):1174-81.
19. Salimi A, Kheiripour N, **Jouzdani AF**, Ghasemi H, Asl SS, Ghafouri-Khosrowshahi A, Ranjbar A. *Nanocurcumin Improves Lipid Status, Oxidative Stress, and Function of the Liver in Aluminium Phosphide-Induced Toxicity: Cellular and Molecular Mechanisms*. BioMed Research International. 2022;2022.
20. **Jouzdani AF**, Madadi S, Abbas MA, Razavi H, Alizamir T. *The comparison stature estimation from forearm, hand length and foot length between Iranian and Pakistani medical students*. AIMS Medical Science. 2022;9(4):496-511.
21. Rahimi-Bashar F, Ashtari S, **Jouzdani AF**, Madani SJ, Gohari-Moghadam K. *Hazard ratio of 90-day mortality in ICU patients with abdominal injuries compared with head injuries*. Archives of Iranian medicine. 2021;24(12):897-902.
22. **Jouzdani AF**, Heidarimoghadam R, Hazhirkamal M, Ranjbar A. *Nanoantioxidant/Antioxidant Therapy in 2019-nCoV: A New Approach to Reactive Oxygen Species Mechanisms*. Current Drug Therapy. 2021;16(4):291-8
23. Hassani M, **Fathi Jouzdani A**, Motarjem S, Ranjbar A, Khansari N. *How COVID-19 can cause autonomic dysfunctions and postural orthostatic syndrome? A Review of mechanisms and evidence*. Neurology and Clinical Neuroscience. 2021;9(6):434-42.

❖ Conference Papers

24. **Jouzdani AF**, Souki A, Ekhtiari H, Soleimani G. *tACS-Induced Modulation of the Frontoparietal Network: A Systematic Review of Techniques and Methodological Parameter Space*. Brain Stimulation: Basic, Translational, and Clinical Research in Neuromodulation. 2025 Jan 1;18(1):470.
25. Sharifzadeh S, **Jouzdani AF**, Souki A, Ghobadi-Azbari P, Soleimani G, Ebrahimi M, Yavari F, Khosrowabadi R, Ekhtiari H. *MEG/EEG-informed Personalized tACS: A Systematic Review of Parameter Space and Methodological Perspective*. Brain Stimulation: Basic, Translational, and Clinical Research in Neuromodulation. 2025 Jan 1;18(1):382.
26. Salmanpour MR, Gorji A, **Jouzdani AF**, Sanati N, Yuan R, Rahmim A. *Exploring Several Novel Strategies to Enhance Prediction of Lung Cancer Survival Time*. In: 2024 IEEE Nuclear Science Symposium (NSS), Medical Imaging Conference (MIC) and Room Temperature Semiconductor Detector Conference (RTSD) 2024 Oct 26 (pp. 1-2). IEEE.
27. **Jouzdani AF**, Abootorabi A, Rajabi M, Panahabadi F, Gorji A, Sanati N, Ahmadzadeh AM, Mousavi A, Bonnie L, Ho C, Yuan R. *Impact of Clinical Features Combined with PET/CT Imaging Features on Survival Prediction of Outcome in Lung Cancer*, SNMMI 2024
28. Salmanpour MR, Gorji A, **Jouzdani AF**, Panahabadi F, Rajabi M, Abootorabi A, Sanati N, Ahmadzadeh AM, Mousavi A, Rahmim A. *Unveiling the Black Box: A Synergistic*

Exploration of Deep Learning Features in Relation to Radiomics and Clinical Information for Enhanced Interpretability in Medical Imaging, SNMMI 2024

29. Salmanpour MR, **Jouzdani AF**, Gorji A, Panahabadi F, Rajabi M, Abootorabi A, Sanati N, Ahmadzadeh AM, Rahmim A. ***Semi-supervised vs. Supervised Machine Learning Approaches for Improved Overall Survival Prediction: Application to Lung Cancer PET/CT Images***, SNMMI 2024
 30. Gorji A, Hosseinzadeh M, **Jouzdani AF**, Sanati N, Rizi FY, Moore S, Leung B, Ho C, Shiri I, Zaidi H, Rahmim A. ***Region-of-Interest and Handcrafted vs. Deep Radiomics Feature Comparisons for Survival Outcome Prediction: Application to Lung PET/CT Imaging***. In 2023 IEEE Nuclear Science Symposium, Medical Imaging Conference and International Symposium on Room-Temperature Semiconductor Detectors (NSS MIC RTSD) 2023 Nov 4 (pp. 1-2). IEEE.
 31. Salmanpour MR, Hosseinzadeh M, Sanati N, **Jouzdani AF**, Gorji A, Mahboubisarighieh A, Maghsudi M, Rezaei SM, Moore S, Bonnie L, Uribe C. ***Tensor Deep versus Radiomics Features: Lung Cancer Outcome Prediction using Hybrid Machine Learning Systems***, SNMMI 2023
 32. Gorji A, **Jouzdani AF**, Sanati N, Hosseinzadeh M, Mahboubisarighieh A, Rezaei SM, Maghsudi M, Moore S, Bonnie L, Uribe C, Ho C. ***PET-CT Fusion Based Outcome Prediction in Lung Cancer using Deep and Handcrafted Radiomics Features and Machine Learning***, SNMMI 2023
 33. **Jouzdani AF**, Gorji A, Hosseinzadeh M, Rahmim A, Salmanpour MR. ***Prediction of Cognitive Decline in Parkinson's Disease using Deep and Handcrafted Radiomics Features***. In EUROPEAN JOURNAL OF NUCLEAR MEDICINE AND MOLECULAR IMAGING 2022 Sep 1 (Vol. 49, No. SUPPL 1, pp. S195-S196). ONE NEW YORK PLAZA, SUITE 4600, NEW YORK, NY, UNITED STATES: SPRINGER.
 34. Bidoky MZ, **Jouzdani AF**, Sangchooli A, Ekhtiari H. ***Functional Magnetic Resonance Imaging Drug Cue-Reactivity as a Biomarker: A Systematic Review of the Current Evidence and the Challenges Ahead***. Addicta: The Turkish Journal on Addictions. 2024 Nov 2;11.
- ❖ **Preprint Papers**
35. Gorji A, **Jouzdani AF**, Sanati N, Ahmadzadeh AM, Yuan R, Rahmim A, Salmanpour MR. ***Censor-Aware Semi-Supervised Lung Cancer Survival Time Prediction Using Clinical and Radiomics Feature***. arXiv preprint arXiv:2502.01661. 2025 Jan 31.

AWARD & HONOR

- ***EZAMA Diploma of Honor, 17th Addiction Science Congress, 2025***
- ***DEZHAKAM Award, 17th Addiction Science Congress, 2025***
- ***Best Research Award, The 8th Iranian Symposium on Brain Mapping, 2024***
- ***Top Clinical Student Researcher, Hamadan Province Research Festival, Hamedan Governorate, Hamadan, Iran. 2024***
- ***Ahwazi Brain & Cognition Award, Iranian Neuroscience Society, Tehran, Iran. 2023***
- ***Top Clinical Student Researcher, Hamadan Province Research Festival,***

Hamedan Governorate, Hamadan, Iran. 2023

- **Most prolific researcher, 24th Research Festival, Hamadan University of Medical Sciences, Hamadan, Iran. 2023**
- **Top Student Researcher, 23rd Research Festival, Hamadan University of Medical Sciences, Hamadan, Iran. 2023**
- **TOP FOUR Best Student Researchers at First National Student Research Festival, Ministry of Health and Medical Education, Iran. 2022**
- **Best Mentor, Student Research Committee, Hamadan University of Medical Sciences, Hamadan, Iran. 2021**

EXPERIENCE AND POSITIONS

- **Researcher, Neuromodulation Laboratory, School of Cognitive Sciences, Institute for Research in Fundamental Sciences (IPM), Tehran, Iran (Sep 2024 – Present)**
(<https://scs.ipm.ac.ir/groups/NeuromodulationLab/index.html>).
- **Researcher and executive cooperation in International Society of Addiction Medicine with a focus on The Addiction Cue Reactivity Initiative (ACRI) of the Enhanced Neuro Imaging Genetics Through Meta-Analysis (ENIGMA), April 2020- Present**
(<https://med.umn.edu/addiction/network/acrin/>)
- **Data Analysis Assistant Officer in ISAM Global Expert Network, ISAM, USA.** At the International Society of Addiction Medicine Global Experts Network and as the assistant officer for protocol development and data analysis, I have been involved in the effort to establish a global expert network of addiction scientists and practitioners and develop a structured protocol for expert elicitation in addiction science. I also helped organize the first ISAM-GEN webinar on expert elicitation(
<https://isamweb.org/global-expert-network>)
- **Research Intern, Image Processing Lab, National Brain Mapping Lab, University of Tehran, Tehran, Iran- Nov/Dec 2021**
- **Researcher in Quantitative Radiomolecular Imaging and Therapy (Qurit) lab, Department of Integrative Oncology, BC Cancer Research Center, Vancouver, British Columbia, Canada, June 2021- Present**
- **Founder of The Neuroscience and Artificial Intelligence Research Group (NAIRG)** a research group at Hamadan University of Medical Sciences (UMSHA) that focuses on the intersection of neuroscience and artificial intelligence (AI). NAIRG was established in 2022 as a part of the Student Research Committee (SRC) of UMSHA and later became affiliated with the **Department of Neuroscience, School of Science and Advanced Technologies in Medicine**. The primary goals of our research team are to provide a better understanding of Neuroscience and Artificial Intelligence (AI) and the application of different methods of AI to understand better medical diseases especially neurodegenerative and neuropsychiatric disorders, with the hope of improving predicting their prognosis, and monitoring these diseases. As the director of this research group, my job includes a voluntary, part-time student research activity based at the **Department of Neuroscience, Hamadan University of Medical Sciences**. It does

not have employment or any financial benefits. February 2022-present
(<https://satm.umsha.ac.ir/NAIRG-Group>, <https://nairg.org/>)

- **Director of Research Center**, Student Research Committee, Hamadan University of Medical Sciences, Hamadan, Iran, October 2019-2022
- **Research Assistant** in Neurophysiology Research Center, Hamadan University of Medical Sciences, Hamadan, Iran- Supervisor: Prof. Alireza Komaki, May 2018-Present
- **Research Assistant** in the Department of Toxicology and Pharmacology, Hamadan University of Medical Sciences, Hamadan, Iran- Supervisor: Prof. Akram Ranjbar, Feb 2018- Present

Memberships

- *Medical Council of the Islamic Republic of Iran (No. 229325)*
- *European Association of Nuclear Medicine, From April 2022- Present*

COURSES

- **MRS and Perfusion**, Neuroimaging Analysis Group, Imam Khomeini Hospital, Tehran, Iran, 1-3 February 2023
- **Functional MR Imaging and Data Analysis Workshop**, Neuroimaging Analysis Group, Imam Khomeini Hospital, Tehran, Iran, 18-20 May 2022
- **Computational Neuroscience**, Neuromatch academy, June 2021- July 2021
- **Cognitive functions to excellence: From assessment to changes**, Laureate Institute for Brain Research, USA and Institute for Cognitive Science Studies (ICSS), Iran, March - June 2021
- **Python for Neuroscience**, Lab for Dynamic of cortical circuits, Neurosciences Research Center, Shahid Beheshti University of Medical Sciences, 4-25 July 2020
- **Fundamental of Cognitive Neuroscience Pragmatic and clinical approach**, Dr. Hamed Ekhtiari, Laureate Institute for Brain Research, USA (with A+) (35 hours course), August 23-December 6 2020
- **Principles of fMRI 1/** Coursera
- **Principles of fMRI 2/** Coursera
- **Fundamental Neuroscience for Neuroimaging/** Coursera

SUMMER SCHOOL / WINTER SCHOOL

- *2nd Iranian School of Cognitive and Addiction Neuroscience, May 7-14, 2024; Tehran, Iran*
- *AI and Emerging Technologies, DLeX (Deep learning Experts), Tabriz University (10-23 September 2020)*
- *IEEE Brain Summer School 2020, IEEE (Project: SSVEP-based BCI)*
- *Summer School of Artificial Intelligence IPM Institute for Research in Fundamental Sciences- 2020*

- *Evidence-based medicine summer school for undergraduate medical students, Tabriz University of Medical Sciences (Designing an Evidence-Based Model for an Epileptic Patient)- 2017*

COMPUTER LANGUAGES/ ENVIRONMENTS

- *MATLABTM*
- *MATLABTM (EEGToolbox, Psysctoolbox)*
- *Python*
- *Python (Nilearn, Nibabel)*
- *R*
- *Tensorflow-Keras*
- *FMRIB Software Library (FSL)*
- *ExploreDTI*
- *Statistical Parametric Mapping (SPM)*
- *C++*
- *SPSS*
- *Graph pad of prism*
- *Meta-analysis software (GingerALE)*
- *Reference Manager (EndNote, Mendeley)*
- *Scientific figure designing (EdrawMax, BioRender)*
- *Microsoft Office*

RESEARCH INTERESTS

- *Neurosciences*
- *Neuroimaging (fMRI, PET, and DTI)*
- *Brain Stimulation*
- *Computational Neuroscience*
- *Personalized Medicine*
- *Nuclear imaging*
- *Neurosurgery*
- *Addiction*