Masoud Noroozi

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❖ Google Scholar ❖ Github ❖ Linkedin

Education

- **B.Sc. in Biomedical Engineering (Bioelectric)** 2018 Sep - 2022 Sep

Department of Biomedical Engineering, Faculty of Engineering, University of Isfahan, Isfahan, Iran

- Major GPA: 3.71/4
- Overall GPA: 3.19/4

Thesis: Classification of risk factors for the diagnosis of leukemia in children case-control (Grade: 4/4)
Supervisor: Dr. Hamid Reza Marateb (Link)
Comprehensive work samples: "Features were selected based on statistical tests, Linear Discriminant Analysis (LDA), Group Method of Data Handling (GMDH), etc."

Research Interests

- Image Processing
- Computer Vision
- Deep Learning
- Machine Learning
- Neuroscience
- Public Health

Skills

Deep Learning: LSTM, GAN, U-NET, RES-NET, CNN, RNN, etc.

AI Packages: TensorFlow, Keras, OpenCV, PyTorch, etc.

Softwares & Programming Languages: Python, Matlab, SPSS, R, C#/C++, STM32, PSpice, Altium Designer, Simulink

Typesetting: Microsoft Office, LaTeX

Social Skills: Time Management, Team Working, Critical Thinking, Hard-working, Adaptable, Responsible, Reliable

Language Skills: Persian (Native), TOEFL iBT (4.5; CEFR B2)

Work Experiences

- Artificial Intelligence Developer *Rayan Tejarat Electronic Maham Co.* 2022 Oct - 2024 Oct
  Comprehensive work samples: "OCR Persian Handwritten, Virtual Car Body Insurance, Cancer Detection, Hospital Staff Management, Insurance ChatBot, etc."

Research Experiences

Research Assistant

- Dr. Hossein Arabi (Link) *University of Geneva* Since Aug 2023
  Research topic: "Medical Image Processing"
- Prof. Alireza Karimian (Link) *University of Isfahan* Since Aug 2023
  Research topic: "Medical Image Processing"

Reviewer

- Reviewer of an articles for "IEEE Transactions on Medical Imaging" 2026 Oct
- Reviewer of 3 articles for "Biomedical Signal Processing and Control" 2025 Dec - 2026 July
- Reviewer of an articles for "Scientific Reports" 2026 Oct
- Reviewer of an articles for "BMC Artificial Intelligence" 2026 July
- Reviewer of an articles for "BMC Medical Imaging" 2026 Aug
- Reviewer of 10 articles for "European Journal of Radiology Artificial Intelligence" 2025 Jun - 2025 Nov
- Reviewer of 25 articles for "Journal of Psychiatric Research" 2023 Mar- 2026 Sep
- Reviewer of 7 articles for "Brain Behavior and Integrative Immunity" 2023 Jan - 2025 Sep
- Reviewer of 7 articles for "IBRO Neuroscience Reports" 2024 Mar - 2026 Sep
- Reviewer of 3 articles for "Diagnosis, Assessment & Disease Monitoring" 2024 Jun - 2025 Feb

- Reviewer of 2 articles for “Neuroscience” 2025 Feb - 2025 Jun
- Reviewer of 2 articles for “Alzheimer's & Dementia: Behavior & Socioeconomics of Aging” 2026 Jan - 2026 Aug
- Reviewer of 6 articles for “BMC Endocrine Disorders” 2026 Apr - 2026 Oct
- Reviewer of 2 articles for “BMC Neurology” 2026 Apr - 2026 May
- Reviewer of 2 articles for “Diabetology & Metabolic Syndrome” 2026 Apr - 2026 July
- Reviewer of 3 articles for “Endocrine” 2026 May - 2026 Sep
- Reviewer of an article for “European Journal of Medical Research” 2026 Apr
- Reviewer of an article for “Journal of Radiation Research and Applied Sciences” 2026 Jun
- Reviewer of 2 articles for “SN Comprehensive Clinical Medicine” 2026 Sep
- Reviewer of an article for “Journal of Diabetes & Metabolic Disorders” 2026 Oct
- Reviewer of 2 articles for “Intelligence-Based Medicine” 2026 Oct

Mentorship & Statistical Analyst

- NeuroTRACT (Link) 2021 Sep - 2024 Jul

Researcher

- Preclinical Imaging in TUMS Preclinical Core Facility (Link) Since Nov 2022
  Research topic: “MRI”
- Institute for Health Metrics and Evaluation (Link) Since Sep 2024
  Research topic: “Global Burden of Disease”

Teaching Experiences

Teacher Assistant

- Principles of Electronics *University of Isfahan* 2021 Sep - 2022 Feb
  Supervisor: Dr. Nima Shahpari (Link)
- Analog Electronics *University of Isfahan* 2022 Feb - 2022 Jul
  Supervisor: Dr. Nima Shahpari (Link)
- Electric Circuits II *University of Isfahan* 2022 Feb - 2022 Jul
  Supervisor: Dr. Hanie Arabian

Workshop Instructor

- Statistic Analysis & SPSS *Scientific Association of Pharmaceutical Students of Iran* 2023 Sep - 2023 Oct

Publications

Image Processing

- Jamaati, S., **Noroozi, M.**, Arabi, H. & Karimian, A. (2025), Hybrid Active Learning–Driven Subset Dataset Selection Enables Near-Optimal Cardiac X-Ray Segmentation with Less Training Data. *2025 32nd National and 10th International Iranian Conference on Biomedical Engineering (ICBME)*, 2025; IEEE, 984-989. Doi: 10.1109/ICBME68496.2025.11392268. (Download)
- **Noroozi, M.** & Arabi, H. (2026), Scleral Vessel Segmentation in Visible-Light Eye Imaging using Deep Hybrid CNN-Transformer Model. *2026 33rd National and 11th International Iranian Conference on Biomedical Engineering (ICBME)* (Download)
- Jamaati, S., Hosseini, S.A., Ghorbanzadeh, M., **Noroozi, M.**, Arabi, H., Dorri Giv, M. & Zaidi, H. (2026), Enhanced Sparse View Ct Reconstruction Using Ordered Subset Expectation Maximization And Asymptotic Non-Local Means Algorithms. *Scientific Reports*, 2026; Doi: 10.1038/s41598-026-70607-1. [Q1; IF:4.9] (Download)
- **Noroozi, M.**, … Arabi, H. & Karimian, A. (2026), Perturbation-Calibrated, Physics-Regularized Latent Representation Learning for Explainable Analysis of Aortic 4D Flow MRI. *2026 33rd National and 11th International Iranian Conference on Biomedical Engineering (ICBME)* (Download)
- Aghapanah, H., Saeeidi Rad, A., Choubin, **Noroozi, M.** & Arabi, H. (2026), A Systematic Loss Function Benchmark in a Hybrid CNN-ViT Framework for Robust Cardiac MRI Segmentation and Ejection Fraction Estimation. (Download)
- Jamaati, S., Dorri Giv, M., Hong, X., Sadeghi, R., Saber Tanha, A., **Noroozi, M.** & Arabi, H. (2026), Sparse-view Reconstruction and Noise Reduction in ^{99m}Tc-PSMA Prostate Imaging. *Nuclear Medicine Communications*, 2026; 47(2), 185-196. Doi: 10.1097/MNM.0000000000002079. [Q3; IF:1.3] (Download)

- **Noroozi, M.**, Jamaati, Sharifian, P., S., Karbasi, M., Gharepapagh, E., Karimian, A. & Rezaei, S. (2025), Added value of synthetic T1/T2-weighted MR images in the segmentation and staging of meningioma. *2025 32nd National and 10th International Iranian Conference on Biomedical Engineering (ICBME)*, 2025; IEEE, 868-874. Doi: 10.1109/ICBME68496.2025.11392182. (Download)
- **Noroozi, M.**, Arabi, H. & Zaidi, H. (2024), Ensemble Learning Framework for Cardiac Systolic Abnormality Segmentation in Catheterization X-ray Images. *2024 IEEE Nuclear Science Symposium (NSS), Medical Imaging Conference (MIC) and Room Temperature Semiconductor Detector Conference (RTSD)*, 2024; IEEE, 1-2. Doi: 10.1109/NSS/MIC/RTSD57108.2024.10657181. (Download)
- **Noroozi, M.**, Arabi, H. & Karimian, A. (2024), Assessment of Transformer-Based Models for Cardiac Systolic Abnormality Segmentation in Cardiac Catheterization X-Ray Images. *2024 31st National and 9th International Iranian Conference on Biomedical Engineering (ICBME),* 2024; IEEE, 129-134. Doi: 10.1109/ICBME64381.2024.10895718. (Download)
- **Noroozi, M.**, Arabi, H. & Zaidi, H. (2024), Attention-Based Network for Cardiac Systolic Abnormality Segmentation in Catheterization X-ray Images. 2024 *IEEE Nuclear Science Symposium (NSS), Medical Imaging Conference (MIC) and Room Temperature Semiconductor Detector Conference (RTSD)*, 2024; IEEE, 1-2. Doi: 10.1109/NSS/MIC/RTSD57108.2024.10655946. (Download)
- Arabi, H., **Noroozi, M.**, … & Cimini, C. (2026), Explainable Artificial Intelligence in Nuclear Medicine: Advancing Transparency in PET and SPECT Imaging and Radiation Therapy. *Frontiers in Biomedical Technologies*, 2026; 13(1). Doi: 10.18502/fbt.v13i1.20789. [Q3; IF:0.68] (Download)
- **Noroozi, M.**, ... , Arabi, H. & Karimian, A. (2025), TransFuse++: A Hybrid CNN-Transformer Architecture with Cross-Attention, Temporal Modeling, and Uncertainty Estimation for Medical Image Segmentation. *2025 32nd National and 10th International Iranian Conference on Biomedical Engineering (ICBME)*, 2025; IEEE, 329-336. Doi: 10.1109/ICBME68496.2025.11392442. (Download)
- Salari, S., Valadbeigie, N., **Noroozi, M.**, Vali, M. & Abedi, I. (2026), Utilizing VGG16 U-Net Architecture for Lesion Detection in FLAIR Images of Multiple Sclerosis Patients. *2026 33th National and 11th International Iranian Conference on Biomedical Engineering (ICBME)* (Download)
- Sharifian, P., Azimi, M.S., **Noroozi, M.**, Karimian, A. & Arabi, H. (2025), Mitigating MRI Domain Shift in Sex Classification: A Deep Learning Approach with ComBat Harmonization. *2025 32nd National and 10th International Iranian Conference on Biomedical Engineering (ICBME)*; IEEE, 1-5. Doi: 10.1109/ICBME68496.2025.11392296. (Download)
- Soleimany, A., **Noroozi, M.**, Arabi, H. & Karimian, A. (2025), Benchmarking nnU-Net vs. Custom 3D U-Net for Kidney Tumor Segmentation: A Controlled Study on KiTS19 Dataset. *2025 32nd National and 10th International Iranian Conference on Biomedical Engineering (ICBME)*, 2025; IEEE, 585-591. Doi: 10.1109/ICBME68496.2025.11392310. (Download)
- Doostinia, S., **Noroozi, M.**, Azimi, M.S., Majidpour, J. & Arabi, H. (2025), Investigating the Self-optimizing nnU-NetV2 for Kidney Tumor Segmentation: Application to the KiTS23 Dataset. *2025 32nd National and 10th International Iranian Conference on Biomedical Engineering (ICBME)*, 2025; IEEE, 602-607. Doi: 10.1109/ICBME68496.2025.11392506. (Download)
- Aghapanah H., Amleshi R.S., Rad A. & **Noroozi, M.**. (2025), A Survey on Cardiac MRI Segmentation: from Classical Methods to State-of-the-Art Deep Learning. *2025 32nd National and 10th International Iranian Conference on Biomedical Engineering (ICBME)*, 2025; IEEE, 369-375. Doi: 10.1109/ICBME68496.2025.11392392. (Download)

Neuroscience

- **Noroozi, M.**, Gholami, M., … & Deravi, N. (2024), Machine and deep learning algorithms for classifying different types of dementia: A literature review. *Applied Neuropsychology: Adult*, 2024; 1–15. Doi: 10.1080/23279095.2024.2382823. [Q2; IF:1.4] (Download)
- Fallahi, M. S., Sahebekhtiari, K., Hosseini, H., Aliasin, M. M., **Noroozi, M.**, ... & Mayeli, M. (2024), Distinct patterns of hippocampal subfield volumes predict coping strategies, emotion regulation, and impulsivity in healthy adults. *Brain Imaging and Behavior*, 2024; 1-21. Doi: 10.1007/s11682-024-00904-8. [Q1; IF:2.4] (Download)
- Najmi, A.H., Ariaei, A., Khezri, M., **Noroozi, M.**, … & Mayeli, M. (2025), Longitudinal Assessment of Parkinson's Motor Symptoms and Dopaminergic Dysfunction Patterns Using DaTSCAN. *Clinical Parkinsonism & Related Disorders*, 2025; 100331. Doi: 10.1016/j.prdoa.2025.100331. [Q3; IF:1.9] (Download)
- Khosravi, F., … **Noroozi, M.**, … & Meaimaneh Jahromi, A. (2025), A Comprehensive Investigation of the Associations between Cerebral Blood Flow and Cerebrospinal Fluid Biomarkers across the Alzheimer's Disease Continuum. *Clinical Neurology and Neurosurgery*, 2025; 257, 109124. Doi: 10.1016/j.clineuro.2025.109124. [Q2; IF:1.6] (Download)

- Hosseini, SF., ... , **Noroozi, M.** & Kazemi, A. (2025). Association of Brain and Ventricular Boundary Shift Integral Measurements with CSF Biomarkers: A Case-Control Study. *Current Alzheimer Research*, Doi: 10.2174/0115672050379856250529113023 [Q3; IF:1.8] (Download)
- Hajihosseini, S., … **Noroozi, M.** , ... & Deravi, N. (2025), A Meta-Analysis Update Evaluating the Treatment Effects of Donepezil Alone Versus Donepezil Combined with Memantine for Alzheimer's Disease. *IBRO Neuroscience Reports,* 2025; Doi: 10.1016/j.ibneur.2025.05.016. [Q3; IF:2.0] (Download)
- Kazemabad, M. J. E., ... , **Noroozi, M.**, ... & Deravi, N. (2022), Pharmacotherapeutic potential of pomegranate in age-related neurological disorders. *Frontiers in Aging Neuroscience*, 2022; 14, 955735. Doi: 10.3389/fnagi.2022.955735. [Q1; IF:4.1] (Download)
- Imanparvar, S., ... , Deravi, N. & **Noroozi, M.** (2025). Correlation between Diabetic Retinopathy and Diabetic Neuropathy in Patients with Diabetes Mellitus: a systematic review and meta-analysis. *Neurology Asia*, 2025; 30(3): 789 – 796. Doi: 10.54029/2025pus. (Download)
- Rahmanian, M., … **Noroozi, M.**, Firouzabadi, F.D. (2024), Prevalence of diabetic neuropathy in nonalcoholic fatty liver disease (NAFLD) patients: A systematic review and meta-analysis. *Neurology Asia*, 2024; 29(1). Doi: 10.54029/2024utt. (Download)

Public Health

- Ng, M., Gakidou, E., Lo, J., … **Noroozi, M.**, … (2025), Global, regional, and national prevalence of adult overweight and obesity, 1990–2021, with forecasts to 2050: a forecasting study for the Global Burden of Disease Study 2021. *The Lancet*, 2025; 405 (10481), 813-838. Doi: 10.1016/S0140-6736(25)00355-1. [Q1; IF:98.4] (Download)
- Haeuser, E., Byrne, S., … **Noroozi, M.**, … (2025), Global, regional, and national trends in routine childhood vaccination coverage from 1980 to 2023 with forecasts to 2030: a systematic analysis for the Global Burden of Disease Study 2023. *The Lancet*, 2025; Doi: 10.1016/S0140-6736(25)01037-2. [Q1; IF:98.4] (Download)
- Force, L.M., … **Noroozi, M.**, … (2025), The global, regional, and national burden of cancer, 1990–2023, with forecasts to 2050: a systematic analysis for the Global Burden of Disease Study 2023. *The Lancet*, 2025; Doi: 10.1016/S0140-6736(25)01635-6. [Q1; IF:98.4] (Download)
- Hay, S.I., Ong, K.L., Santomauro, D.F., … **Noroozi, M.**, … (2025), Burden of 375 diseases and injuries, risk-attributable burden of 88 risk factors, and healthy life expectancy in 204 countries and territories, including 660 subnational locations, 1990–2023: a systematic analysis for the Global Burden of Disease Study 2023. *The Lancet*, 2025; Doi: 10.1016/S0140-6736(25)01637-X. [Q1; IF:98.4] (Download)
- Schumacher, A.E., Zheng, P., Barber, R.M., … **Noroozi, M.**, … (2025), Global age-sex-specific all-cause mortality and life expectancy estimates for 204 countries and territories and 660 subnational locations, 1950–2023: a demographic analysis for the Global Burden of Disease Study 2023. *The Lancet*, 2025; 813-838. Doi: 10.1016/S0140-6736(25)01330-3. [Q1; IF:98.4] (Download)
- Naghavi, M., Kyu, H.H., … **Noroozi, M.**, … (2025), Global burden of 292 causes of death in 204 countries and territories and 660 subnational locations, 1990–2023: a systematic analysis for the Global Burden of Disease Study 2023. *The Lancet*, 2025; Doi: 10.1016/S0140-6736(25)01917-8. [Q1; IF:98.4] (Download)
- Santomauro, D. F., … **Noroozi, M.**, … (2026), Updated trends in the global prevalence and burden of mental disorders, 1990–2023: a systematic analysis for the Global Burden of Disease Study 2023. *The Lancet*, 2025; Doi: 10.1016/s0140-6736(26)00519-2. [Q1; IF:98.4] (Download)
- Roth, G.A., … **Noroozi, M.**, … (2025), Global, Regional, and National Burden of Cardiovascular Diseases and Risk Factors in 204 Countries and Territories, 1990-2023. *Journal of the American College of Cardiology (JACC)*, 2025; Doi: 10.1016/j.jacc.2025.08.015. [Q1; IF:22.3] (Download)
- Kang, J., Kim, J. H., Park, J., Kim, M. S., Park, S., … **Noroozi, M.**, … (2026), Burden of 10 mental disorders in low- and middle-income countries, 1990–2023, with forecasts to 2050: a Global Burden of Disease Study. *Med*, 2026; 7 (8), Doi: 10.1016/j.medj.2026.101224. [Q1; IF:13.3] (Download)
- Dadkhah, P.A., Taheri, H., **Noroozi, M.**, … & Deravi, N. (2026), Therapeutic approaches to diabetic macular edema assessed using optical coherence tomography and optical coherence tomography angiography. *International Journal of Ophthalmology*, 2026; 19(1), 160-174. Doi: 10.18240/ijo.2026.01.20. [Q2; IF:1.8] (Download)
- Khoshzaban Benisi, M., … **Noroozi, M.** , ... & Khakpour, Y. (2025), The effect of pre-operative MRI on the in-breast tumor recurrence rate of patients with breast cancer: a meta-analysis. *Langenbeck's Archives of Surgery*, 2025; 410 (120) Doi: 10.1007/s00423-025-03691-y. [Q2; IF:2.4] (Download)

- Babamohamadi, Z., … **Noroozi, M.** & Deravi, N. (2025), Response Efficacy of PD-1 and PD-L1 Inhibitors in Salivary Gland Cancers: A Systematic Review and Meta Analysis. *Frontiers in Oncology*, 2025; 15 (1534343). Doi: 10.3389/fonc.2025.1534343. [Q2; IF:3.5] (Download)
- Faraji, M., … **Noroozi, M.** & Ebrahimi, M.A. (2025), Clinical performance of machine-learning algorithms to predict intraoperative hypotension: a meta-analysis. *BMC Surgery*, 2025; Doi: 10.1186/s12893-025-03412-8. [Q2; IF:2.2] (Download)
- **Noroozi, M.**, Ghasemirad, H., … & Deravi, N. (2024), Visit-to-Visit Variability of Blood Pressure and Risk of Diabetic Retinopathy: A Systematic Review and meta-analysis. *American Journal of Cardiovascular Disease*, 2024;14(5):281-294. Doi: 10.62347/DFSZ9202. [Q1; IF:1.4] (Download)
- Alijanzadeh, D., **Noroozi, M.**, … & Deravi, N. (2025), Impact of Change, Fluctuation, or Variability in Weight on the Risk of Nonalcoholic Fatty Liver Disease in General Population: A Systematic Review and meta-analysis. *Health Science Reports*, 2025; 8 (10) Doi: 10.1002/hsr2.71255. [Q2; IF:2.1] (Download)
- Emami, E., … **Noroozi, M.** & Deravi, N (2026). CT scan in the prediction of margin-negative resection in pancreatic cancer following neoadjuvant treatment: an updated systematic review and meta-analysis. *iRADIOLOGY*, 2026; 4 (2) Doi: 10.1002/ird3.70064. [Q3] (Download)
- Poudineh, M., ... , **Noroozi, M.**, ... & Yousem, D. M. (2025). Olfactory and Gustatory Recovery Time Evaluation of COVID-19: A Systematic Review and Meta-Analysis. *Acta Medica Indonesiana*, 2025; 57(1),18. [Q3; IF:0.8] (Download)
- Ayati, A., ... , **Noroozi, M.** & Rahmanian, M. (2025). Efficacy of orlistat for the treatment of metabolic dysfunction–associated steatotic liver disease patients: A systematic review and meta-analysis. *Hepatology Forum*, Doi: 10.14744/hf.2024.2024.0047 [Q3; IF:1.2] (Download)

Under Revision Publications

- Deep Learning in PET Image Segmentation: A Review of Techniques and Challenges (Download)
- Generative AI for Synthetic Retinal Imaging: A Systematic Review of Models, Applications, and Clinical Readiness (Download)
- Cognitive Functions Correlate of Default Mode Network (DMN) Connectivity: A Resting-State fMRI Study (Download)
- Investigation of the Association between Growth-Associated Protein 43 and FreeSurfer MRI Findings in Alzheimer's Disease (Download)
- A comprehensive Investigation of the associations between Tau PET findings with cognitive assessments and the ptau 217 findings from autopsy of patients with Alzheimer's dementia (Download)
- Deep Learning Framework for Preoperative Recognition of Inverted Papilloma and Nasal Polyp in Computed Tomography: A Systematic Review and Meta Analysis (Download)

Selected Workshops & Courses Certificate

Deep Learning Specialization	*Coursera, DeepLearning.AI*
Machine Learning	*Coursera, Stanford University*
Data Visualization	*Coursera, University of Illinois*
EEG Signal Recording & Signal Processing	*National Brain Mapping Laboratory (NBML)*
Digital Signal Processor (DSP) with Matlab	*University of Isfahan*
Data analysis with R programming language (Advanced)	*National Brain Mapping Laboratory (NBML)*
Comprehensive Course on Magnetic Resonance Imaging (MRI)	*National Brain Mapping Laboratory (NBML)*
Troubleshooting and Repairing Hospital Medical and Medical Imaging Equipment	*Northwest University*
Seizure models in laboratory animals	*Tarbiat Modares University*
MRI simulation for radiotion treatment planning	*ISMRM Iranian Chapter*
Calibration and quality control of nuclear medicine devices (PET and SPECT)	*TUMS Preclinical Core Facility*
Multimodal imaging in animal models of Alzheimer's disease	*TUMS Preclinical Core Facility*
BCI & Neurotech Masterclass: Combined EEG & fNIRS	*g.tec medical engineering GmbH*
Virtual BCI & Neurotechnology Spring School	*g.tec medical engineering GmbH*
TMS based brain mapping online seminar	*National Brain Mapping Laboratory (NBML)*
Online cognitive science winter school	*Isfahan University of Medical Sciences*

References

Dr. Hossein Arabi	University of Geneva, Geneva , Switzerland	Link
Prof. Alireza Karimian	University of Isfahan, Isfahan, Iran	Link
Dr. Hamed Aghapanah	Isfahan University of Medical Sciences, Isfahan, Iran	Link