

Dornaz Mazinani

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Education

Amirkabir University of Tehran

Bachelor of Science in Biomedical Engineering, Bioelectronics

[Sep 2019-2023]

- **CGPA: 3.39**
- **GPA: 3.5**
- **B.Sc. thesis title:** Evaluation of brain tracking from subsampled diffusion images
- **Selected courses:** Engineering Mathematics (20/20), Electronics (II) (20/20), Electronics (I) (19.25/20), Linear Control Systems (18.8/20), Medical Instrumentation & Measurement (18/20), Statistical Analysis of Medical Data (17.93/20)

Farzanegan 1 Highschool, National Organization for Development of Exceptional Talents *[Sep 2016, Jun 2019]*

High School Diploma, Mathematics and Physics

Research Interests

- Medical Imaging
- Medical Image Processing
- Artificial Intelligence application in medical diagnosis
- Medical Image Analysis
- Deep learning and Machine learning methods to process medical data
- Functional Magnetic Resonance Imaging
- Computer vision in medical devices

Research Experience

Research Assistant

[Aug 2022 - Present]

Quantitative MR Imaging and Spectroscopy Group (QMISG)

QMISG.com

- Conduct research in **Artificial Intelligence**
- **Collaborate** with team members to conduct experiments and analyze data
- Prepare **reports and presentations** on research findings

Publications

Currently I'm working on three projects that I intend to submit their results to get them published.

[Under preparation]

Notable Projects

- **Automated robotic system for breast biopsy with Deformation compensation**
Researched an automated robotic system for breast biopsy with deformation compensation. Explored the use of preoperative imaging to identify target lesions and generate biopsy plans.
- **Permutation-based true discovery proportions for functional Magnetic Resonance Imaging cluster analysis**
Researched and explored permutation-based true discovery proportions for functional Magnetic Resonance Imaging (fMRI) cluster analysis in R language. Investigated the utilization of permutation testing on a Novel dataset to estimate the TDP of identified clusters in fMRI data.
- **Traffic light circuit design**
Explored the design of a traffic light circuit using Proteus software. Utilized the software's simulation capabilities to create a virtual representation of the circuit.

Teaching Experience

Teaching Assistant

[Fall 2022]

Department of Biomedical Engineering, Amirkabir University of Technology

Digital Image Processing, Instructor: Dr. Hamed Azarnoosh

- Assisted in the preparation and **delivery** of **course lectures** and materials
- **Graded** assignments and exams and **provided constructive feedback** to students

Professional Experience

- Publication Headmaster, Tapesh Journal [Oct 2021- May 2023]
Biomedical Engineering Department, Amirkabir University of Technology
 - **Managed** the publication process of the Tapesh Journal, **editing** and **reviewing** manuscripts, and coordinating with **authors** and **reviewers**.
 - **Led** a team of **editors, reviewers, and production staff**, providing guidance and support to ensure the success of the journal
- A Member of Students' Scientific Association [Oct 2021- May 2023]
Biomedical Engineering Department, Amirkabir University of Technology
 - Participate in the **planning** and **coordination** of **academic and scientific events**

- Assist in the **management** of the association's budget and resources

- Social Media Content producer

[Sep 2020 – Jan2022]

The Quantitative Medical Imaging Systems Group

- Created and **curated content** about **MRI Physics and MRI protocols** for social media platforms

Skills

- **Programming Languages**
 - Python
 - MATLAB
- **Medical Image Analysis Software**
 - DSI Studio software
 - 3D Slicer
 - ITK-SNAP
- **Other softwares**
 - Ltspice
 - Proteus
 - Microsoft Office
 - Adobe Photoshop
 - Adobe Premiere

Languages

- English (Advanced; TOEFEL score: 100)
- Persian (Native)