Mohammad Tufail Sheikh

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sheikhecetufail.github.io | Linkedin | Github | Google Scholar

Introduction

I am pursuing a Ph.D. at MedImg Lab, Centre For Biomedical Engineering, IIT-Delhi, under the supervision of Prof. Anup Singh. My research interests include the Application of AI in Neuro-Imaging, specifically, Post-operative Treatment Planning and Response Assessment in Brain Tumors.

Education

Indian Institute of Technology, Delhi *July 2023 – Present*
Ph.D. in Medical Imaging

- GPA: 10/10
- **Coursework:** Image Processing, Data Analysis in Medical Data, Computational Physiology, etc.
- **Thesis Title:** Analysis of Neuroimaging Data of Glioblastoma for Treatment Planning And Response Assessment

National Institute of Technology, Srinagar *July 2021 – June 2023*
M.Tech in Communication and Information Technology

- GPA: 9.3/10
- **Coursework:** Machine Learning, Quantum Computing, Wireless Communication, etc.
- **Major project**: Analysis of Brain Tumors using Multimodal MRI to predict MGMT promoter status.

National Institute of Technology, Srinagar *July 2014 – June 2018*
B.Tech in Electronics and Communication

- GPA: 8/10
- **Major project**: Colour based Object Follower

Publications

Large blood vessel segmentation in quantitative DCE-MRI of brain tumors: A Swin UNETR approach Jan 2025

Anshika Kesari, Satyajit Maurya, ***Mohammad Tufail Sheikh***, Rakesh Kumar Gupta, Anup Singh - Magnetic Resonance Imaging, Elsevier.

10.1016/j.mri.2025.110342

DeepDepth: Prediction of O(6)-methylguanine-DNA methyltransferase genotype in glioblastoma patients using multimodal representation learning based on deep feature fusion April 2024

B. Keerthiveena, ***Mohammad Tufail Sheikh***, Hariprasad Kodamana, Anurag S. Rathore - Neural Computing and Applications, Springer.

10.1007/s00521-024-09757-0

Experience

Research Intern, Medical Imaging *New Delhi, India*
Prof. Anurag Rathore, IIT-Delhi *Jan 2024 – Jun 2024*

- Worked on Analysis of Brain Tumors using Multimodal MRI for predicting the MGMT promoter status.
- Published a Journal Paper.

Project Coordinator *J&K, India*
Rhic Innovation LLP *July 2018 – March 2021*

- Implemented various image-based projects like an Obstacle avoidance robot, etc.

Research Intern *Hyderabad, India*
Prof. Madhava Krishna, Robotics Research Centre, IIIT-Hyderabad *July 2017 – Sep 2017*

- Worked on the problem of Image-Based Visual Servoing.

Projects

Cobbs Angle Measurement App *Github*

- Developed a software-based application to measure Cobb's angle in scoliosis patients.
- Tools Used: Python, OpenCV

Analysis of Brain Tumors using Multimodal MRI for predicting the MGMT promoter status *2023*

- Tools Used: Python , PyTorch

Optical Character Recognition of Nautical Charts *2022*

- Developed a custom processing pipeline that includes object detection, followed by a recognition algorithm
- Tools Used: Python, TensorFlow

Colour-based Object Follower *2018*

- Real-time Object Follower based on the colour of the object.
- Tools Used: Raspberry Pi, Arduino, OpenCV, C Language

Skills

Courses: Image Processing, Medical Imaging, Machine Learning, Deep Learning, Data Analysis

Languages: Python, Matlab

Libraries: PyTorch, MONAI, Tensorflow, PyQt5