Mohammed Fayiz Parappan

PhD Student · Electrical and Computer Engineering, Duke University

Room 9039, Hock Plaza, Duke University, Durham, NC 27705, USA

mp606@duke.edu | mohammedfayizp.github.io/

Education

Duke University — *Durham, United States*

PhD Electrical and Computer Engineering — *Aug. 2025 - present*

- GPA: 4.0/4.0
- Advisor: Dr. Ricardo Henao

IIT Kharagpur — *West Bengal, India*

Btech in Industrial Eng. and Mtech in Management (Integrated) — *Nov. 2020 - May 2025*

- CGPA: 9.46/10.0 (Department Rank 1)
- Bachelor Thesis: Literature Study on Few Shot Learning & Metalearning (Slides)
- Master Thesis: Pluralistic Toxicity Distribution Modelling Approach (Slides)

Research Interests

Pluralistic Alignment of NLP systems, Subjective NLP, Applied Machine Learning, Recommender Systems

Publications

Mohammed Fayiz and Ricardo Henao. Labels have Human Values: Value Calibration of Subjective Tasks. **Under Review**

Mohammed Fayiz and Ricardo Henao. Learning Subjective Label Distributions via Sociocultural Descriptors **EMNLP 2025 Main (Core A*, Poster)**

Tiash Ghosh, **Mohammed Fayiz**, Mamata Jenamani, Aurobinda Routray, Sanjai Kumar Singh. Unveiling the Subsurface Faults in Indian Krishna Godavari Basin: A Domain Adaptation Approach **IEEE TGRS (Q1, IF: 8.5)**

Deepak Mewade, **Mohammed Fayiz**, Debasis Samanta. Deep Learning Pipeline for EEG Classification: Evaluating Models, Preprocessing and Subject Generalizability **ICPR 2024**

Professional Experience

2025	**AI Research**, Crink.App: Developing a framework for agentic AI in mental healthcare by building customized memory systems that replicate therapy styles and modeling ML methods to quantify well-being questionnaires
2024	**Visiting Researcher**, KAUST: Developing equitable machine learning methods for healthcare applications that are calibrated across diverse demographic groups in diagnosis
2024	**Data Science Fellow**, ONGC: Deep learning–based modeling to detect fault layers in the Krishna–Godavari Basin from noisy 2D seismic data slices
2023	**MITACS Globalink Fellow**, Queen's University: Developing few-shot learning methods for EEG-based motor imagery classification to enable low-resource adaptation of BCI systems
2021-2025	**Research Assistant**, Brain Computer Interface Lab, IIT Kharagpur: Developing few-shot learning methods for EEG-based motor imagery signal classification to enable low-resource adaptation of BCI systems

Technical Skills

Programming Languages: C, C++, Python, Matlab, R
ML Framework: Pytorch, Tensorflow, Skicitlearn
LLM Framework: Langchain

Awards, Fellowships, & Grants

2025	**Duke PhD Fellowship**, Duke University	*$625,000*
2025	**Director's Institute Silver Medal**, IIT Kharagpur	*$ 500*
2025	**IndiaAI-IIT Fellow**, Ministry of Electronics and Information Technology of India	*$ 2,200*
2023, 2024	**Visiting Researcher Fellowships**, KAUST, MITACS Canada	*$ 11,000*

Coursework

Fall 2025	**Deep Learning**, ECE 685D
Fall 2025	**Natural Language Processing**, ECE 684
Spr. 2026	**Transformers to Large Language Models**, ECE 590