

Mohammed Fayiz Parappan

PHD STUDENT · ELECTRICAL AND COMPUTER ENGINEERING, DUKE UNIVERSITY

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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, Scikitlearn

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