Ahmed ALMIJBARI
AI PhD Researcher | Neurotechnology

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🎓 EDUCATION

Dec 2023	**Elite MSc in Neuroengineering**, Technical University of Munich. (with Honours)
Jul 2017	**BSc in Electrical Engineering**, University of Benghazi. (3.95 out of 4).

💼 EXPERIENCE

Present — Jul 2024

AI PhD Researcher, TECHNICAL UNIVERSITY OF MUNICH, Munich

Munich Institute of Robotics and Machine Intelligence – The AI Mission Institute
- Researching brain-inspired approaches to AI and computing for next-generation intelligent systems
- Designing intelligent algorithms integrating machine learning, dynamical systems, control theory, and data science to model and control brain interfacing systems

Dec 2023 — Nov 2022

Data Scientist, KLINIKUM RECHTS DER ISAR DER TUM, Munich

Department of Diagnostic and Interventional Neuroradiology
- Developed large-scale data-driven systems to identify neural biomarkers of brain disorders, analyzing over 200 GB of neuroimaging data and 160+ million brain-signal time series. Advanced AI-driven diagnostic tools and personalized treatment for mental and neurological disorders.

Aug 2023 — Feb 2023

ML Research Engineer, TECHNICAL UNIVERSITY OF MUNICH, Munich

Dynamics of Brain Connectivity Lab
- Built unsupervised machine learning algorithms to extract task-relevant features from over 3 million high-dimensional, temporal whole-brain voxel data points across 25+ subjects.

Jul 2023 — May 2023

AI Intern, UNIVERSITY OF OXFORD, Oxford

Oxford Machine Learning Summer School - MLx Health
- Completed 43 hours of intensive training and 12 hands-on workshops covering foundational and medical AI. Collaborated on an interdisciplinary team project to implement advanced deep learning models for healthcare AI applications.

Oct 2021 — May 2021

Neuroengineering intern, TECHNICAL UNIVERSITY OF MUNICH, Munich

Brain and Memory Lab
- Engineered and deployed a real-time brain interfacing system for detecting and modulating memory-related neural biomarkers, achieving over 97% accuracy with less than 20ms latency.

Dec 2018 — Sep 2017

Teacher Assistant, UNIVERSITY OF BENGHAZI, Benghazi
- Delivered 50+ tutorial sessions in Electromagnetic Theory and Digital Communications, improving comprehension and academic performance for 100+ students. Co-supervised four projects applying advanced Signal Processing and Machine Learning methods.

▤ SKILLS

Programming	**Languages :** Python (fluent), MATLAB, Julia **ML & Data Science :** PyTorch, TensorFlow, Transformers (HuggingFace), Scikit-learn, NumPy, Pandas, SciPy, torchvision, Matplotlib, Seaborn **Software Engineering :** Test-Driven Development (TDD ; Google Test), Continuous Integration/Continuous Deployment (CI/CD), Git Version Control, API Integration (FastAPI), CMake, Linux Environments
Computational	Machine Learning & Deep Learning, Large-scale Modelling and high-dimensional Data Analysis, Multimodal signal processing, Dynamical Systems, Numerical Methods, Probability & Statistics, Information Theory
Neurotechnology	fMRI Analysis (FSL, SPM), EEG/EMG Acquisition & Processing, Embedded Systems (ESP32 Microcontroller), Electronics Simulation (Multisim), Hardware Measurement Tools (Open Ephys, Oscilloscope)

🖋 CIVIL SOCIETY ACTIVITIES

Dec 2018 Jan 2018	**Scientific Coordinator, TANAROUT ORGANIZATION, Benghazi** › Founded and led the Science Club, facilitating engaging weekly discussions, hands-on workshops, and interactive activities focused on engineering, technology, and scientific innovation to inspire youth interest in STEM fields.
Dec 2017 Jan 2017	**Co-founder, BUILDING READERS PROJECT, Benghazi** › Created and executed an innovative reading and personal development program for 50 high-achieving students, guiding them through 30 influential books, seven interactive workshops, four tailored coursework, and professional presentation training.
Dec 2018 Oct 2015	**Board Member, RUGBY2018 PROJECT, Benghazi** › Promoted social cohesion and peace-building through sports, engaging 881 youth participants by organizing 28 regional championships and 25 educational workshops.
May 2012 Apr 2011	**Co-founder and IT manager, LIBYA ALWATAN MEDIA FOUNDATION, Benghazi** › Co-founded and led IT operations for a national media organization during the Libyan uprising, supporting 5 publications and a radio station with a 50+ person team.

★ AWARDS

Research Excellence	**Elite Network of Bavaria** Awarded by the Bavarian State Ministry of Science and the Arts for outstanding research contributions.
Scholarship Holder	**Rheinstahl Stipendium** Selected among Germany's top 50 students nationwide, recognizing academic excellence and exceptional research potential.
Scholarship Holder	**Louis Schuler Funds** Granted for outstanding academic achievements and for advancing research in science and technology.