

Abdallah Abouabdallah

Aachen, Germany

[Github](#)

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Languages & Software: Python, Node.js, MLOps, SQL, vLLM, RAG, Agent systems, Docker, Git, Bash

EDUCATION

FH Aachen University of Applied Sciences
Master of Science in Medical Engineering

Aachen, Germany
2024 - Present

FH Aachen University of Applied Sciences
Bachelor of Engineering in Medical Engineering

Aachen, Germany
2020 - 2023

University of Moulay Ismail Meknes
Associate's Degree in Medical Engineering

Meknes, Morocco
2018 - 2020

EXPERIENCE

Uniklinik RWTH Aachen
Research Assistant

Aachen, Germany
Oct 2024 - Present

- Collaborated with clinicians, researchers, and engineers to design predictive algorithms.
- Managed huge health-related data from databanks like UKB.
- Integrated solutions for analyzing multimodal data.
- Implemented ML models and LLMs for various projects.

Forschungszentrum Jülich
Research Assistant (Praktikum)

Jülich, Germany
Oct 2022 - Oct 2023

- Analyzed 3D cellular images from confocal microscopy, focusing on high-precision segmentation.
- Applied ML algorithms to classify cellular objects across datasets.
- Designed visual reports for interdisciplinary teams, aiding critical decision-making.

Dott
Mechanic (Scooters and E-bikes)

Cologne, Germany
Jun 2022 - Aug 2022

- Repaired E-bikes and Scooters, improving operational efficiency.

Medicorum GmbH
Medical Tester

Cologne, Germany
May 2021 - Jun 2021

- Performed medical tests on patients, ensuring data accuracy in documentation.

PROJECTS

External modeling pipeline: A portable, compact modeling pipeline for cross laboratory and cross research team model-sharing and external validation. It automatically and easily ships our models and makes them applicable at different sites with minimal setup.

LLM Document Retrieval System: System that answers user questions based on information retrieved directly from document. Web UI built with node.js, React and the LLM (Agent) infrastructure uses vLLM and RAG. Everything built and contained in Docker for easy deployment in different systems.

Liver Tumor Segmentation: Developed an ML model for liver tumor segmentation, leveraging cascaded Res-Attention-UNet for precision in clinical imaging.

ECG Signal Classification: Classified 1016 ECG signals achieving 91% accuracy using TensorFlow.

Web-based UI for ECG Metadata: Created a Flask/SQL-based web UI for managing patient and ECG data.

Interactive ML for Imaging: Conceptualized a web UI to visualize and interact with segmented CT/MRI images, bridging ML and usability.

EXTRACURRICULAR ACTIVITIES

Languages: German (C1), English (fluent), French (fluent), Arabic (fluent) .

Interests: Software development, DevOps, MLOps, Medical imaging, bioinformatics, and machine learning applications.