# Rifaath Mohamed Ameen

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# Profile

Master's student in AI who enjoys learning new things and figuring stuff out along the way. Always up for a challenge, and excited to grow by exploring different ideas and working with others.



#### **EDUCATION**

• FAU Erlangen-Nürnberg

M.Sc. in Artificial Intelligence; GPA: 1.3

Bavaria, Germany Oct. 2024 – Present

• NMAM Institute of Technology

B.E. in Artificial Intelligence and Machine Learning; CGPA: 9.71 / 10.00

Karnataka, India Oct. 2020 – Sep. 2024

#### EXPERIENCE

• Arabian Calibration Devices Rep. Co. LLC.

Jul. 2023 - Aug. 2023

Sharjah, UAE

IT Audit Intern

- Interviewed 10+ department heads and staffs to identify workflow inefficiencies and proposed AI-based automation solutions
- Provided recommendations for enhancing security measures, adopting AI and IoT solutions, and improving overall efficiency.
- Factweavers Technologies Private Limited

Kerala, India

AI Intern - Automation & Generative AI

Jun. 2023 - Jul. 2023

- o Developed an API endpoint utilizing generative AI to automate business processes involving content generation.
- Conducted extensive research and testing on multiple pre-trained LLMs to evaluate their performance and limitations.
- Enhanced content retrieval efficiency by integrating FAISS indexing, reducing search time by 25%

## RESEARCH & PROJECTS

#### Patent: ACCENDIA - Research Project:

Aug. 2023 - Apr. 2024

- Implemented a multi-document query system using RAG and LangChain with multi-LLM support
- o Patent filed and published at the Indian Patent Office (Ref No.: 202441036620, Published: 09 May 2024)
- Awarded "Best Project of the Year" for the institution

# **Heart Rate Detection using Motion Magnification:**

Mar. 2023

o Built a motion magnification system to detect heart rate from video, improving remote health monitoring

## Ship Segmentation and Detection using Satellite Imagery:

Nov. 2022

- Automatic detection of ships from satellite image to handle illegal infractions at sea .
- o Built an R-CNN-based model to detect and segment ships in satellite images, aiding in maritime surveillance

#### IoT Enabled Smart Attendance Tracking using RFID Module:

Nov. 2022

o Designed an RFID-based automated attendance system with Arduino, MySQL, and PHP for real-time tracking

# Reverse Image Search Using CNN:

Nov. 2022

 $\circ~$  Developed a CNN-powered search engine using ResNet50 to retrieve visually similar images

## TECHNICAL SKILLS

Languages Python, C++, C, Java, R, AppScript Databases MySQL, PostgreSQL, MongoDB

ML/AI Tensorfow, Scikit-learn, Natural Language Tool Kit, OpenCV

Data Analytics Pandas, Numpy, Matplotlib, Plotly, MySQL, Beautiful Soup

Miscellaneous Git, Selenium, Linux, Bash, PowerShell, FAISS, OpenAI API

#### ACHIEVEMENTS

- Selected for the Digital Tech Fellow program at FAU, one of the 21 selected from 200 applicants.
- Best Project of the Year for ACCENDIA.
- Invited Resource Person for Faculty Development Program on LangChain, OpenAI, and the Future of Computer Vision & ML.
- Finalist HackOverflow 1.0 (National Hackathon).
- 2nd Place Byte Battle (ACM NMAMIT & HackerEarth Hub NMAMIT).
- 2nd Place MATRIX Coding Contest (CSI NMAMIT).
- 2nd Place NMAMIT Circuit 03 Hackathon (ACM NMAMIT & HackerEarth Hub NMAMIT).
- 3rd Place WKND.HACK (IEEE STB 34551, NMAMIT).
- Three-time Winner NMAMIT Coding Contest.
- Best Working Model Science Exhibition, NIMS Dubai.

## LEADERSHIP

• People & Culture Executive

Oct. 2024 – Present START Nuremberg

• Student Placement Overall Head

Sep. 2023 – Aug. 2024 Dept. of Placements & Training, NMAMIT

• Branch Captain

Sep. 2023 – Present NMAM Institute of Technology, Nitte Secretary

Oct. 2022 – Sep. 2023 NMAM Institute of Technology, Nitte

• Third Year Representative

Dec. 2022 – Sep. 2023 HackerEarth Hub, NMAMIT

• House Captain

2019 - 2020

Gulf Asian English School

# MISCELLANEOUS

Languages: Malayalam (Native), English (C1), German (Beginner)

Hobbies: Driving, Photography, Trekking, Track-racing