

MD RAFIDUL ISLAM

AI, ML, NLP, COMPUTER VISION, DATA SCIENCE, AND SOFTWARE ENTHUSIASTS

WORK EXPERIENCE

NUBEDIAN GMBH, KARLSRUHE — *BACHELOR THESIS*

JULY 2025 - CURRENT

Multimodal LLM-driven PNG document parser

- Implementing intelligent document parsing (PDFs, text, and images) with automated chunking, embeddings, and knowledge base integration via REST APIs.
- Investigation of OCR techniques (EasyOCR, Tesseract) with preprocessing to improve accuracy.
- Collaborating in an agile environment using modern technologies: Java, Rust, TypeScript, Node.js, React, and Kubernetes.

NUBEDIAN GMBH, KARLSRUHE — *AI INTERN*

DECEMBER 2024 - JUNE 2025

- Development of a RAG chatbot: Fine-tuning a pre-trained LLM and integrating a Retrieval-Augmented Generation (RAG) pipeline to build an advanced chatbot for hospital management.
- Agentic AI research: Researching and implementing agentic support functions using the Model Context Protocol (MCP) to improve the chatbot's autonomy and adaptability.
- Workflow automation: Designing and deploying scalable n8n and LangChain workflows using AWS and Azure that enable dynamic document analysis, knowledge retrieval, and seamless system integration.

SCHANZER RACING E.V. INGOLSTADT — *SOFTWARE DEVELOPER*

FEBRUARY 2024 - JULY 2024

- C++ (Raspberry Pi): Contributed to the design and implementation of intelligent sensor prototypes to improve data accuracy and performance in embedded systems.
- MATLAB: Assisted with data modelling, simulation, and analysis to evaluate and improve vehicle performance metrics.
- Git & Bitbucket: Collaborated on the development of reliable firmware in C++ for embedded systems in the automotive industry, ensuring proper version control and maintainability.

PROJECTS

AUTONOMOUS UNDERWATER VEHICLE

IEEE, MARCH 2019

MRI Diffusion Image Distortion Correction

PROF. MARION MENZEL, JANUARY 2024 – JUNE 2024

- Conducted extensive research on Hough Transformation for determining voxel directions to detect cancer cells in brain.

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EDUCATION

ARTIFICIAL INTELLIGENCE

INGOLSTADT, GERMANY — *TECHNISCHE HOCHSCHULE INGOLSTADT*

OCTOBER 2022 - CURRENT

- Software development and web technologies: Django, PHP, Java (OOP)
- Data science and AI: (ML algorithms, NLTK), data visualization
- Computer vision and image processing: OpenCV
- Big data concepts and tools

STATISTICS

SYLHET, BANGLADESH — SHAHJALAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

JANUARY 2019 - MARCH 2022

Real analysis, linear and higher algebra, R programming, economics

SKILLS

PROGRAMMING

Python, C++, Java, Prolog

AI TOOLS

PyTorch, Tensorflow, Langchain, Langgraph, NLTK, CNN, Transformers

WEB TECHNOLOGY

HTML, CSS, Django, React, NodeJS (Express), MongoDB

OTHER

Flutter, Jira, Linux, n8n, GitHub

CERTIFICATE

SQL

BIG DATA TECHNOLOGY, APRIL 2024

NETWORK SYSTEM

GOOGLE, JANUARY 2024

MACHINE LEARNING

STANFORD UNIVERSITY, AUGUST 2020

LANGUAGES

ENGLISH C1
GERMAN A2