Md Nahin Hossain Uday

Software Developer and System engineer

Contact:

📍 Echoer Str. 6

42369 Wuppertal, Germany

✉ Nahinu95@gmail.com

🖥 [Portfolio site](#) | in [Linkedin](#)

📱 +491709932145

Professional Summary

Forward-thinking Software Development Engineer with expertise in computer vision and machine learning. I have experience working with ADAS cameras of automated cars during my work student role. Building high-performance AI solutions for manufacturing automation and bridging software and hardware interfaces. Skilled in C++, Java, Python, R, and AI model deployment. Passionate about pioneering next-generation robotic applications and driving projects from concept to production.

WORK EXPERIENCE

Wissenschaftliche Hilfskraft

University of Wuppertal, Wuppertal, Germany

Sep 2024 - Present

- Assisted in analysing and managing large datasets for German road network research.
- Applied statistical methods in the Backend interface to visualise research findings in an interactive app.
- Developed a Flask-React user interface for better interactive visualisation.

Data Scientist (Work Student)

Aptiv, Wuppertal, Germany

May 2023-Oct 2023

- Extracted and transformed GPS data from YAML and pickle files using Python scripts.
- Designed and implemented a PostgreSQL database schema for storing data in a structured way.
- Created a map generation tool to visualise location data using Folium.
- Build a Django backend and React frontend to serve map data via a web interface.

EDUCATION AND TRAINING

Master's in Computer Simulation in Science
University of Wuppertal, Germany
Oct 2022 - Present

Bachelor's in Computer Science and Engineering
American International University-Bangladesh, Bangladesh
Jan 2017- Nov 2020

Technical SKILLS

- **Programming and Frameworks:** C++, Python, Java, C#, Golang, OpenCV, TensorFlow, PyTourch
- **Software Engineering:** Object Oriented Programming, architecture and design patterns, Scalable system design, integration testing, CI/CD.
- **Robotics and AI:** Computer vision pipeline, ML model training and deployment, manufacturing automation system.
- **Databases and DevOps:** MySQL, PostgreSQL, Oracle, DuckDB, Git, Linux, ETL pipeline
- **Tools and processing:** Agile methodologies, code reviews, source control, build automation, performance profiling.

Projects

- **Next-Gen Road simulator (2025):** Used Geological data and an advanced algorithm to minimise travelling time on German highways https://github.com/NH-Uday/Roadsimulator
- **FNN for Text Recognition (2020):** Used Matlab code to develop a Feedforward Neural Network for text recognition purposes. https://github.com/NH-Uday/Feed-Forward-Neural-Network-for-Text-Recognition
- **Renewable Powerplant Data Analysis (2023):** Analysed renewable powerplant data to optimise energy using ML forecasting https://github.com/NH-Uday/Renewable-Powerplant-Data-Analysis

LANGUAGE SKILLS

- Bengali: Native
- German: A1 (A2 in progress)
- English: C1

Certificate

- Introduction to Big Data - Coursera
- Neural Network and Deep Learning - Coursera
- Internet of Things – AIUB Continuing Education Centre

Research Experience

From Nature to UAV - A Study on Collision Avoidance in Bee Congregation
DOI: https://doi.org/10.5815/ijisa.2024.03.06
2018 – 2020

- Led a team of 3 in collecting and annotating video data of flying bees.
- Analysed collision avoidance behaviours and proposed a UAV collision avoidance model.

Hobbies

Reading, Travelling and Football

Reference

Stefan Becker,

ASUX team manager at Aptiv

Email: becker.stefan@aptiv.com