NAHIN HOSSAIN UDAY

SOFTWARE AND WEB DEVELOPER

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. To learn more, please visit my website at Nahin (click to open).

WORK EXPERIENCES

09/2024 – Present **Wissenschaftliche Hilfskraft | University of Wuppertal**

- Assisted in analysing and managing large datasets with DuckDB for academic research on road networks.
- Applied statistical methods using R, then visualised the data to present research findings.
- Developed a web module as a user interface for better interactive visualisation using Python Flask and React JS.

05/2023 – 10/2023 **Data Scientist (Work Student) | Aptiv**

- 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 Python Django backend and React JS frontend to display map data via a web interface.

EDUCATION

10/2022 – Present **Computer Simulation in Science | University of Wuppertal**

01/2017 – 10/2023 **Computer Science and Engineering | American International University Bangladesh**

- CGPA 1.8 (German grading system)

TECHNICAL SKILLS

- **Programming and Framework:** C++, Python, Java, Golang, OpenCV, Tensorflow, PyTorch
- **Software Engineering:** Object Oriented Programming, Software architecture and design patterns, Scalable system design, Integration testing, CI/CD pipeline.
- **AI and Big data:** Computer vision pipeline, Machine learning model training and deployment. Manufacturing automation system
- **Databases and DevOps:** MySQL, PostgreSQL, Oracle, DuckDB, Git, Linux
- **Tools and Processing:** Agile methodologies, Source control, Performance profiling.

CONTACT

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GITHUB: https://github.com/NH-Uday

LANGUAGE SKILLS

Deutsch:	A2 (B1 in progress)
English:	C1
Bengali:	Native

CERTIFICATES

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

HOBBIES

Reading, Traveling, Football, Computer Games

REFERENCE

Stefan Becker,

ASUX team manager at Aptiv

Email: becker.stefan@aptiv.com

PROJECTS

- **Road Simulator** (2025): Used geological data for the calculation and optimisation travelling time for German highways. The tools for this project were Python, DuckDB, R and React JS.

Project link: https://github.com/NH-Uday/Roadsimulator

- **FNN for Text Recognition** (2023): Used Matlab code to develop a Feedforward Neural Network for text recognition.

Project link: https://github.com/NH-Uday/Feed-Forward-Neural-Network-for-Text-Recognition

- **Chatbot** (2025): Used Pythoon, Typescript and Next JS to develop a ChatGPT based Chatbot.

. Project link: https://github.com/NH-Uday/Chatbot

RESEARCH EXPERIENCE

2019-2020 **From Nature to UAV – A Study on Collision Avoidance in Bee Congregation.**

DOI: *https://doi.org/10.5815/ijisa.2024.03.06*

- Collected and annotated video data of flying bees
- Applied a statistical model to understand the collision avoidance behaviour of a bee swarm.
- Worked with the Swarm Intelligence algorithm to propose a collision avoidance model for UAV swarm.