# NAZMUL HASSAN

## Python Developer | Machine Learning & AI Engineer

+44 7405 027 004 Nazmul.naaz96@gmail.com nazmulhassan.dev github.com/HassanNazmul Greater London E1

#### SUMMARY

Python Developer with 3+ year's experience in backend and API development. Skilled in building reliable backend solutions with Python using Django and FastAPI. MSc in Artificial Intelligence from Queen Mary University of London, with a strong foundation in machine learning. Experienced in designing RESTful APIs, managing relational databases, and building end-to-end machine learning models with TensorFlow during academic and personal projects. Motivated to solve real-world problems and always keen to learn more.

#### **TECHNICAL SKILLS**

Programming Languages: Python, TypeScript, SQL, Go (learning)

Backend Engineering: Django, FastAPI, REST APIs, Microservices, PostgreSQL, MySQL

Frameworks & Libraries: TensorFlow, Scikit-learn, NumPy, Pandas, React.js, Next.js

DevOps & Tools: Docker, Linux, GitHub, Data Structures & Algorithms, Agile, MCP, n8n

### EXPERIENCE

## **Backend Python Developer**

TXTIV (Remote Freelance)

- Designed and developed scalable backend systems using Django and FastAPI, ensuring high performance.
- Optimised RESTful APIs to improve frontend-backend communication, reducing response times by 20%.
- Designed relational databases (PostgreSQL, MySQL) to support high-traffic operations with zero downtime.
- Debugged and optimised backend performance by resolving critical bottlenecks, improving data retrieval speeds.
- Contributed to knowledge sharing and code reviews in a distributed team.

## Software Developer (6-Month FTC) Switz Energy (Hybrid)

- Designed and developed a custom CRM system using Django (backend) and React (frontend).
- Built secure, scalable RESTful APIs for handling customer data, service tracking, and workflow automation.
- Implemented user authentication, role-based access control, and real-time dashboards to support internal teams.
- Delivered the project 5 weeks early, meeting all business requirements and ensuring a smooth handover.
- Collaborated with business stakeholders to align technical delivery with business needs.

## Junior Database Developer (Intern)

#### Molex

- Assisted in designing data models to organise over 20 datasets, improving data accessibility for analytics.
- Wrote and optimised SQL queries to improve database performance and support operational reporting.
- Collaborated with data engineers to develop scalable data structures and improve team workflows.

## Junior Front End Developer (Intern)

#### Team Oreo

- Assisted in developing and styling responsive web pages using HTML5, CSS3, and JavaScript.
- Contributed to building 10+ UI components and frontend features based on design mockups and team feedback.
- Supported user experience improvements by reviewing engagement data and suggesting minor interface updates.

London, United Kingdom

London, United Kingdom

07/2021 - 12/2021

03/2022 - 08/2023

Chengdu, China

02/2019 - 07/2019

London, United Kingdom

09/2018 - 12/2018

#### EDUCATION

## M.Sc. Artificial Intelligence

Queen Mary University of London (QMUL)

- Focus: Natural Language Processing (NLP), Machine Learning, Neural Networks and Deep Learning
- Research Paper: Al-Generated vs. Human-Written Content Detection

## **B.Sc. Computer Science**

University of East London (UEL)

• Key Modules: Advanced Programming, Networks & Security, Data Structures, Algorithms

## **Computer Science**

University of Electronic Science and Technology China (UESTC)

- Focus: Advanced Databases, AI, and Algorithms
- Internship completed at Molex (Chengdu office)

#### PROJECTS

## Eye Disease Classifier (CNN & Vision Transformer)

Built deep learning models using TensorFlow to classify 10 eye diseases from a medical image dataset. Achieved up to 87% test accuracy. Included preprocessing, model training, and evaluation. [Source CNN] [Source Vision ViT]

## Fraud Detection in Credit Card Transactions

*Built machine learning models (Logistic Regression, Random Forest, XGBoost, LightGBM) to detect fraudulent transactions. Performed exploratory analysis, and model evaluation using F1-score and AUC-ROC. [Source]* 

## Plant Disease Detection Using Convolutional Neural Networks

*Trained a CNN model on the Plant-Village dataset to classify multiple plant diseases, achieving 100% test accuracy. Covered image preprocessing, model training, and model deployment in TensorFlow.* [Source]

#### **RESEARCH PAPERS**

#### AI Generated vs. Human Written Content Detection Tools

*Research-based project focused on developing model to detect AI-generated content through linguistic and statistical analysis.* [View The Paper]

TRAINING / COURSES

Machine Learning Scientist in Python by DataCamp

Python Data Structures & Algorithms by Scott Barrett

Harvard CS50's Programming with Python

REFERENCES

Julie Wall Julie.Wall@uwl.ac.uk

MY LIFE PHILOSOPHY

The best among you are those who bring the greatest benefits to others. - Prophet Muhammad (PBUH)

#### FIND ME ONLINE

LinkedIn (linkedin.com/in/nhassan96) GitHub (github.com/HassanNazmul) Portfolio (nazmulhassan.dev)

London, United Kingdom 09/2023 - 10/2024

London, United Kingdom 09/2017 - 10/2020

> Chengdu, China 02/2019 - 07/2019