# **Alex Munasinghe**

☑ <u>alexthedev2001@gmail.com</u> ⑥ 078 838 32638 <u>lin linkedin.com/in/r-munasinghe</u> ② <u>mAlex28</u> ② <u>alexmunasinghe.com</u>

#### **PERSONAL PROFILE**

Aspiring AI engineer with a MSc in Artificial Intelligence from UWE Bristol and hands-on internship experience in software and web development. I have a solid foundation in Python, machine learning, and reinforcement learning, and I'm now focused on applying these skills in a junior AI role. With a blend of academic knowledge and practical coding experience, I'm keen to contribute to innovative projects, learn from experienced teams, and grow into a well-rounded AI professional.

#### **EDUCATION**

University of West of England, UK Sep 2023 - Nov 2024

MSc in Artificial Intelligence - Distinction

Sep 2019 - Jan 2023 University of Plymouth, UK

BSc(Hons) Software Engineering - 2:1

#### **PROJECTS**

#### Crime Prediction Dashboard (Ongoing)

Website

• Developed an machine learning pipeline using real crime data from Bristol. Performed data cleaning, feature engineering (time, location, crime type), and aggregated data at postcode level. Trained XGBoost models to predict monthly crime count and classify likely crime types. Evaluated using F1-score and MSE. Deployed an interactive dashboard via Streamlit to visualise predictions.

### **Household Energy Simulation**

<u>GitHub</u>

• Developed a Python-based ABM simulation for household energy consumption, integrating Q-learning agents (reinforcement learning) using OpenAI Gym and Mesa for energy-efficient scheduling. Designed strategies that reduced electricity and gas usage, saving 3-5% in energy consumption per household, while applying teamwork and problemsolving skills to address real-world challenges.

#### Music Recommendation System

GitHub

• Built a hybrid music recommender system using Graph Neural Networks (GNN) and knowledge-based methods, enhancing recommendation accuracy by tuning hyperparameters. Evaluated performance through intra-similarity metrics, collaborating effectively and applying critical thinking to improve system performance.

#### **Student Performance Analysis**

GitHub

• Developed a machine learning pipeline for predicting student performance by applying feature engineering and comparing models (Logistic Regression, Random Forest, SVM, KNN). Addressed class imbalance and ensured ethical data handling, managing time effectively while solving complex data-related issues independently.

#### WORK EXPERIENCE

#### Al Data Trainer - Prompt and Evaluation (Freelance) - Outlier Al (Remote, UK) February 2025 - Present

• Supported training and fine-tuning of LLMs through prompt engineering, response evaluation, and error identification. Focused on improving model outputs across reasoning, code generation, and instruction-following tasks, while adhering to project guidelines and data privacy standards.

#### Web developer Intern - Surge Global

January 2023 - July 2023

· Worked on WordPress development using Divi and custom PHP, created custom plugins, and integrated AJAX for dynamic content. Conducted quality checks for consistency, developed a 50+ page site as a final project, and applied SEO best practices for improved search ranking.

#### Junior Software Engineer - Salesreckon

August 2021 - April 2022

• Developed front-end applications using ReactJS and NextJS, built back-end APIs with Java and Spring Boot, and created mobile apps with Flutter. Improved web performance through dynamic API-based services, automated report generation to streamline workflows, and implemented SEO for better visibility.

## **SKILLS**

- Languages: Python, R, SQL, PHP
- Al/ML Frameworks & Tools: TensorFlow, PyTorch, OpenAl Gym, Hugging Face, Pandas, NumPy, Matplotlib, Scikit-learn
- Cloud & deployment : Google Cloud, Docker, Streamlit
- Databases: MySQL, MongoDB, Google Firebase, PostgreSQL
- Other: Tableau, Git, Agile methodologies