(+44) 078-21824835 Glasgow, UK majiahui821@gmail.com

# Jiahui Ma

Portfolio github.com/dsnasn linkedin.com/in/jiahui821

Skilled in building and deploying scalable models on Azure and AWS. Proficient in Python, PyTorch, TensorFlow, and SQL, with expertise in NLP, computer vision, recommendation systems, and data-driven problem-solving.

**SKILLS** 

**Programming** Python, SQL, Bash, Java Frameworks PyTorch, TensorFlow

Cloud Platforms Microsoft Azure, AWS, Google Colab, Databricks

Tools & Visualization Streamlit, Tableau, Power BI, Matplotlib, Seaborn, Docker, Git, Jenkins

**EDUCATION** 

Master of Computer Science, The University of Glasgow

Expected Sep 2025

**Bachelor of Software Engineering**, Beijing Jiaotong University | UK 2:1 Equivalent

2020 - 2024

Relevant Coursework: Machine Learning & AI, Data Science and Systems, Big Data, Deep Learning

**WORK EXPERIENCE** 

# **Machine Learning Intern**

Jan 2024 - Jun 2024 | Beijing, China

CNBM Information Technology Co., Ltd.

- Improved data cleaning efficiency by 30% through SQL optimization and managing 500GB+ of industrial data.
- Engineered features like power-output ratio, rolling mean energy, and peak-hour flags to improve model accuracy.
- Developed machine learning models (Random Forest, XGBoost) for energy consumption and cement production forecasting, increasing AUC from **0.75** to **0.85**. Optimized power allocation, reducing energy waste during low production and preventing shortages during peak demand.
- Built KPI dashboards using Matplotlib and Seaborn, enhancing decision-making across departments.

#### **Data Scientist Intern**

Jun 2023 - Dec 2023 | Beijing, China

ByteDance

- Designed real-time dashboards to monitor key ad metrics (PV, UV, conversion rates) during promotions, assessing strategy impact and detecting issues. Improved click-through by 5% and conversion by 3% via A/B testing.
- Built churn prediction model (XGBoost) to detect at-risk users, achieving F1 score of **0.82** and reducing churn by **8**%. Enabled proactive retention strategies, such as targeted promotions and personalized recommendations.
- Conducted user traffic analysis during promotions, increasing active users by 7% and ARPU by 2%.

#### **PROJECTS**

### Sentiment Analysis using NLP and LLMs | GitHub

Jun 2024 — Aug 2024

- **Model Development**: Fine-tuned a BERT-base-Chinese model (Hugging Face) for sentiment analysis on **30,000**+ user reviews, achieving **92**% accuracy and an F1 score of **0.89**.
- Cloud Deployment: Built a Streamlit-based web interface, containerized with Docker, and deployed on Azure and AWS for real-time API sentiment analysis.

#### Intelligent Food Recommendation System | GitHub

Mar 2024 — May 2024

- Algorithm Optimization: Designed recommendation algorithms to improve user retention rate from 65% to 75%.
- Search Optimization: Increased query accuracy from 70% to 85%, reducing response time to 5 seconds.
- Data Insights: Utilized Plotly to develop dashboards for analyzing user trends and identifying high-spending users.

#### Breast Cancer Histopathology Diagnosis | GitHub

Sep 2024 — Dec 2024

- Model Development: Fine-tuned a DenseNet121 model for multi-class classification of breast cancer histopathology images, achieving 95% accuracy.
- Deployment: Built Streamlit web application for real-time image upload and diagnosis, improving user accessibility.

## **CERTIFICATIONS**

DP-100, DP-203 (Azure Certifications), IBM Data Science Professional Certificate, Google Analytics, IELTS 8.0 Proficient in deploying machine learning models, designing scalable solutions, and building end-to-end data pipelines using Azure services such as Machine Learning, Data Factory, and Databricks.

#### **INTERESTS**

- Passionate about music, I analyze Spotify listening data, using clustering techniques on personal history to generate tailored playlists, and exploring global trends through **Tableau** data visualization. Explore My Visualizations
- Enjoy hiking and jogging, particularly in the morning, which enhances my resilience and goal-oriented mindset.