# **MD MAHFUZUR RAHMAN**

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### **SUMMARY**

Al enthusiast with expertise in Machine Learning and NLP. Proven experience in developing models for Text Summarization, Image Classification, and Recommendation Systems. Skilled in Python, PyTorch, TensorFlow, and web development. Eager to pursue a PhD to advance research in Al and NLP.

### **EDUCATION**

Xi'an Jiaotong University, CHINA

Sept 2023 - Present

Master's in Computer Science and Technology.

CGPA:

3.82 with 92 Average

**Honor and Awards:** Chinese Government Scholarship (2023-2025).

The Second International student Essay writing competition 2023,3rd Prize.

Resume Design Competition 2024, Excellent Prize.

Yunnan University, CHINA

Sept 2018 - June 2022

**Bachelor in Software Engineering.** 

CGPA: 3.44 with 89 Average

Honor and Awards: National Green Computing Contest Series, Second place (2019),

Third place (2020).

TAETEA Outstanding International Student Scholarship: Spring 2021, Fall

2021 & Spring 2022.

### **EXPERIENCE**

Physics Wallah Sept 2022 - March 2023

### **Data Science Intern**

- Developed ML models using Python, enhancing data-driven decision-making by 25%.
- Created data visualizations, facilitating improved stakeholder insights.
- Optimized data preprocessing, increasing model accuracy by 20%.

### **Yunnan University**

Intern Oct 2021 - April 2022

- Collaborated with Prof. Dr. Xie Cheng on a Deep Learning project, focusing on enhancing image classification models.
- Documented new concepts, received critical feedback, and implemented improvements, solidifying my expertise in AI and ML.

## Teaching Assistant

March 2021 - Jan 2022

- Supported the "Database System Design & Software Engineering" course, improving student engagement and comprehension.
- Provided academic assistance to over 100 students, enhancing classroom learning outcomes.

### Xi'an Jiaotong University

### **Teaching Assistant**

From September 2024

• Appointment TA for "Basic Computer Application" course where have more than 70 students.

Academic Tutor April 2024- June 2024

- Provided one-on-one mentoring in Python programming, AI, ML, and NLP, addressing students' specific challenges.
- Conducted Q&A sessions and introduced essential computer software, equipping students with vital academic tools.

### **PROJECT**

#### **NLP-Text Summarization**

- Generated text summaries from input text using a pre-trained model: Google/PegasusCNN from Hugging Face.
- Employed Auto Tokenizer for performance evaluation, effectively summarizing large volumes of text data.

### **Pneumonia Detection with CNN**

- Developed a CNN model using VGG-16 and ResNet-50 on the Guangzhou Women and Children's Medical Center dataset.
- Achieved an accuracy of 91.35% with VGG-16 and 88.00% with ResNet-50, enhancing early detection of pneumonia.

### **Movie Recommendation System**

- Built a personalized recommendation system analyzing user ratings to recommend movies.
- Implemented using collaborative filtering to enhance user experience based on preferences and past ratings.

### Course Selection System

- Designed a role-based course selection system using JavaScript for admin, teachers, and students.
- Features include course creation, scoring, and management, streamlining the course selection process.

### **E-Store Platform**

- Developed an online shopping platform using Django, featuring secure user authentication, dynamic catalogs, and seamless payment integration.
- Integrated a review and rating system, optimizing the user shopping experience with mobileresponsive design.

### **SKILLS**

- Programming Languages: Python, JavaScript, C.
- Machine Learning & NLP: Scikit-Learn, PyTorch, TensorFlow, Keras, CNNs, NLTK.
- Web Development: Django, Flask, HTML/CSS.
- Data Science: Pandas, NumPy, Matplotlib, Seaborn.
- Tools & Libraries: Git, Jupyter, Google Colab, Linux.

### **VOLUNTEER EXPERIENCE**

### International Student Union | Xi'an Jiaotong University

• Member: September 2023 - August 2024

• Minister: September 2024 - August 2025