MD Piyal Ahmmed

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EDUCATION

Ahsanullah University of Science and Technology — **Dhaka, Bangla**
Bachelor of Science in Computer Science and Engineering *(CGPA -* ***2.815/4.00****)*

Birshreshtha Noor Mohammad Public College — **Dhaka, Bangladesh**
Higher Secondary Certificate *(GPA -* ***5.00/5.00****)* — *2019*

A.K. High School and Collegel — **Dhaka, Bangladesh**
Secondary School Certificate *(GPA -* ***5.00/5.00****)* — *2017*

THESIS PROJECT

- **Gender Bias Mitigation for Bangla Classification Tasks** [Link]
  - Developed **four manually annotated datasets** for **sentiment analysis, toxicity detection, hate speech detection, and sarcasm detection** in Bangla.
  - Used a **gender-name swapping technique** to detect gender bias in pretrained models.
  - Implemented **joint loss optimization** (cross-entropy + cosine similarity) to mitigate bias in Bangla NLP tasks.
  - Evaluated on **Bangla BERT-based models** and achieved **improved fairness without compromising accuracy**.
  - **Technologies Used:** Python, PyTorch, TensorFlow, NLP, Transformers (BERT).

ACADEMIC PROJECTS

- **Donate Your Blood** — Link
  - Developed a full-stack web application to connect blood donors and recipients using PHP, MySQL, HTML, CSS, and JavaScript.
  - Designed and implemented donor registration, login system, and recipient request forms for efficient user interaction.
  - Built a search and filter feature to match blood donors with recipients based on blood type and location.
  - Structured and managed a MySQL database to store and retrieve donor and recipient information securely.
  - Ensured responsive design for accessibility across desktop and mobile devices, improving user experience.
- **Credit Card Fraud Detection System** — Link
  - Built a fraud detection pipeline using the public Credit Card Transactions dataset.
  - Implemented and compared classification models: Logistic Regression, SVM, Random Forest, and K-Nearest Neighbors.
  - Conducted data preprocessing, normalization, and addressed class imbalance for improved detection.
  - Evaluated model performance using confusion matrix and classification reports.
  - **Technologies Used:** Python, Scikit-learn, Pandas, Matplotlib, Jupyter Notebook.

TECHNICAL SKILLS

Programming Languages: Python, C++, Java
Libraries and Tools: PyTorch, TensorFlow
ML Architectures: CNN, NLP
Databases: MySQL, PostgreSQL
Frameworks: Numpy, Pandas, Langchain,LangGraph Pydantic, FastAPI
Others: Data Structures, Algorithms, OOP