Farhan Sharukh Hasan

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Research Interests

Natural Language Processing (NLP), AI in Healthcare, Software Development, Larger Language Model (LLM).

Education

University of North Texas – Denton, TX   Jan 2025 – Present
Master of Science, Data Science

Ahsanullah University of Science and Technology – Dhaka, Bangladesh   Nov. 2017 – July 2022
Bachelor of Science, Computer Science and Engineering; CGPA: 3.36/4.0

Research Experience

- Urgent Bengali Text Detection using Deep Learning & Pre-trained Transformers. *(Ongoing)*
- EmAH: Employee Attrition in Healthcare- Predicting Attenuation and Suggesting Corrective Measures using XAI. *(Draft Paper Ready)*

Professional Experience

Software Developer, Codeshaper – Dhaka, Bangladesh   March 2023 – April 2024

- *Responsibilities:* meetings with the development team, discussions on building features of existing projects, writing and refactoring codes, and documenting completed tasks.
- Optimized the stock control and logistics module of an inventory system by 30% using Laravel DB Query, MySQL, and jQuery to improve inventory accuracy and operational efficiency; led backend development and deployed project to production.
- Integrated APIs to track authorized user loan records in the loan module of an online banking system using Laravel Queues, aiming to enhance loan tracking and minimize user errors; collaborated closely with a team of 2 developers and was responsible for backend development.

Software Engineer Intern, JoulesLabs – Dhaka, Bangladesh   Aug. 2022 – Nov. 2022

- Improved data filtering and keyword search functionality by 15% on all modules of an online crowdfunding platform admin panel with over 11,000 users by streamlining Eloquent ORM approaches in Laravel, aimed at enhancing user experience and reducing query response times.

Projects

Employee Attrition Detection in Healthcare | GitHub   Aug. 2024 - Oct. 2024

This project addresses employee attrition in healthcare using Explainable AI to identify influential factors and provide actionable insights to improve retention. It combines machine learning and deep learning models with interpretable AI methods to predict attrition and understand key factors. Tools Used: Python, Pandas, NumPy, Sci-Kit Learn, Matplotlib.

Blog Bridge: An online blog publishing platform | GitHub   Feb. 2023 – March 2023

It is an online blog publishing platform with membership options. It allows users to create blog posts with a title and description, and users can choose their own membership package and make the payment process via stripe payment system. Tools Used: HTML, CSS, JavaScript, PHP, Laravel, MySQL.

Skills

Programming Languages	Python, C/C++, MATLAB, PHP
Database Management	MySQL, SQLite, Oracle, PL/SQL
Data Visualization	Matplotlib, Tableau, MS-Excel
Web Development	Laravel, Vue, Git, Docker
Machine Learning	Pandas, NumPy, Scikit-learn
Deep Learning	TensorFlow, PyTorch, HuggingFace Transformers, LLaMA, GPT
Code Editor	VS Code, Kaggle, Google Colab