MD TANVIR AHMED CHWODHURY

Research and Data Analyst

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in **Tanvir Ahmed Chowdhury** | 🔗 **Tanvir-Explore** | 🌐 **Portfolio**

PROFILE SUMMARY

BSc in Computer Science and Engineering from North South University, with a focus on Machine Learning and Deep Learning for applications in the medical sector. Skilled in data scraping, preprocessing, annotation, and visualization. Collaborated with AI/ML researchers and domain experts to extract actionable insights. Strong interest in developing AI-driven solutions across various industries, with a focus on applying technical expertise in challenging and dynamic environments.

EDUCATION

North South University   **2020 - 2024**
- Bachelor of Science in Computer Science And Engineering   **CGPA: 3.43/4.00**

Ideal College Dhanmondi   **2017 - 2019**
- Higher Secondary School Certificate From Science Group

Rajdhani High School   **2015- 2017**
- Secondary School Certificate From Science Group

WORK EXPERIENCE

Research and Data Analyst | Neural Semiconductor Limited   **JAN 2025 - PRESENT**
- Conduct data scraping to extract relevant datasets for AI/ML research. Perform data preprocessing, including cleaning, normalization, and transformation, to ensure high-quality input for models.
- Annotate datasets with precise labels to facilitate supervised learning tasks. Develop insightful data visualizations to support research findings and decision-making.
- Collaborate closely with ML/AI researchers and domain experts to enhance model performance and research outcomes.

Research Assistant | North South University   **FEB 2024 - DEC 2024**
- Lead and manage end-to-end research projects in Machine and Deep Learning, focusing on healthcare in an attempt to deliver solutions for medical problems.
- Design and apply machine learning models to analyze data, make predictions, and monitor the performance of such models.
- Collaborate with supervisors and various teams in defining research objectives, allocating resources, and ensuring projects are completed within timelines.
- Prepare technical reports, research papers, and presentations, contributing to publications in high-impact journals and conferences.

PUBLICATIONS

Adaptive Squeeze-and-Excitation Module Integrated with Enhanced VGG-19 and Feature Pyramid Network for Endodontic Image Classification | Publication Link   **2024**

Accepted for publication and presentation at IEEE TENCON 2024, IEEE Region 10

PROJECTS

Adaptive Squeeze-and-Excitation Module Integrated with Enhanced VGG-19 and Feature Pyramid 2024 Network for Endodontic Image Classification | Project Link

- Developed a deep learning-based framework to classify endodontic images with enhanced accuracy by integrating Adaptive Squeeze-and-Excitation modules into the VGG-19 architecture combined with a Feature Pyramid Network.
- The model addresses challenges such as class imbalance and complex feature extraction in endodontic imaging, providing robust classification results

Classification of Heat-Related Illness Risk Using Machine Learning and Explainable AI | 2023 Project Link

- Designed a machine learning-based framework for the prediction of heat-related illnesses based on the analysis of environmental and physiological factors.
- It will help in the identification of those at risk through data inputs such as temperature, humidity, heat index, and other personal health parameters so as to give warnings for severe outcomes.
- This model is now equipped with state-of-the-art algorithms, enabling high-accuracy real-time forecasting; therefore, extremely important in high-risk zones.

Machine Learning and Explainable AI Based Predictive Analysis of Drug Addiction in 2024 Bangladesh | Project Link

- Machine learning system for researching and forecasting the trends and risk factors of drug addiction in Bangladesh, using social, economic, and demographic information.
- The system helps policymakers and health workers to identify high-risk groups and to develop targeted prevention plans.
- Implemented detailed data preprocessing and feature selection to increase model accuracy for actionable insights.

TECHNICAL SKILLS

- Programming Languages: C, C++, Java, Python
- Libraries/Frameworks: Pandas, Numpy, Seaborn, Scikit-learn, Matplotlib, TensorFlow, Keras, PyTorch, JavaScript, React
- Tools / Platforms: Power BI, Tableau, Infogram, Datawrapper, Roboflow, Git, Flask
- Databases: SQL, SQL Server, T-SQL

SOFT SKILLS

- Analytical & Problem-Solving Skills: Critical thinking, Data-driven decision-making Troubleshooting complex issues
- Communication & Collaboration: Effective written and verbal communication, Team collaboration
- Adaptability & Continuous Learning: Quick learning of new technologies, Ability to work in dynamic, Adapting to new tools
- Time Management & Organization: Handling multiple projects efficiently, Meeting deadlines.
- Leadership & Initiative: Taking leadership of projects and tasks, Mentoring.

ECA

Datathon Bangladesh 2024 - Robi Axiata Limited
The Datathon was designed as an intense 48-hour long competition and was also intended to provide a platform for data scientists and enthusiasts.

Runner up, Banglagamer Dota 2 Championship
The BanglaGamer Dota 2 Championship is a tournament organized by BanglaGamer.com for all Dota 2 players located in Bangladesh.