

Minhajul Islam

✉ Email —  LinkedIn —  Github —  Scholar —  ORCID

Research Interest

Human Activity Recognition — Machine Learning in Healthcare — Natural Language Processing — Human-Computer Interaction — CyberSecurity

Publications

- **Automated Assessment of Autism Using Multimodal Data and Ensemble Learning: Towards Scalable and Consistent Robot-Enhanced Therapy**

Journal: IEEE Transactions on Neural Systems and Rehabilitation Engineering

- Used the DreamDb dataset for research purposes.
- Generated saliency maps from eye gaze and head gaze data to determine the children's focus points.
- Analyzed saliency map data to assess engagement in Standard Human Therapy (SHT) versus Robot-Enhanced Therapy (RET).
- Paper under review in IEEE Transactions on Neural Systems and Rehabilitation Engineering.

- **Estimation of Autism Spectrum Diagram and Prediction of ADOS for Children to Aid Robot Enhanced Therapy**

- DOI: https://doi.org/10.24466/pacbfsa.35.0_D-4

Conference: Proceedings of the Annual Conference of Biomedical Fuzzy Systems Association

- Utilized the DreamDB dataset for this study.
- Incorporated eye gaze, head gaze, and body marker data to detect ADOS scores and ASD levels.
- Proposed a novel approach considering unjointed body marker data, demonstrating its significance.
- Used machine learning algorithms, such as XGBoost and Random Forest.

- **Simultaneous Detection of DDoS and SQL Injection Attacks Using ML Techniques**

- DOI: 10.5120/ijca2021921428

Journal: International Journal of Computer Applications

- Conducted research using distinct datasets for simultaneous and independent detection of DDoS and SQL injection attacks.
- Employed NLP techniques for SQL injection detection and machine learning for DDoS detection.
- Developed a multimodal neural network to concurrently detect DDoS and SQL injection attacks.

Education

BSc. in Computer Science and Engineering, Ahsanullah University of Science and Technology

04/2017 – 02/2022

CGPA: 3.2/4.00

Professional Experience

Software Engineer, TechnoNext Software Limited

08/2023 – Present

- Applied machine learning techniques to analyze data for business insights.
- Maintained OOP principles and optimized database pulls to enhance system efficiency.
- Integrated AWS S3 for image storage and APM for real-time error tracking.
- Implemented SonarQube to improve code quality and adhere to industry standards.
- Developed a microservice architecture for scalability and modularity.
- Used Dapper and Entity Framework as ORMs.

Software Engineer, Intercloud Limited

02/2022 – 07/2023

- Consistently applied SOLID principles to ensure maintainable and scalable code.
- Integrated Payment Gateway methods and automated email generation using RabbitMQ.
- Developed complex stored procedures and triggers.

Skills

Languages: Python, C#, C++, SQL, JavaScript

Machine Learning: Deep learning, NLP, Supervised and Unsupervised Learning, Data Cleaning, Neural Networks, Feature Engineering, PyTorch, scikit-learn, TensorFlow

System Proficiency: Git, Visual Studio

Web Application: .NET 8

Scores

GRE General: 302 (Verbal: 144, Quantitative: 158, AW: 3.5)

TOEFL iBT: 88 (Reading: 20, Listening: 24, Writing: 24, Speaking: 20)

References

Md Atiqur Rahman Ahad, Associate Professor, University of East London

atiqahad@gmail.com

Mr. Nazmus Sakib, Assistant Professor, Ahsanullah University of Science and Technology

sakib.cse@aust.edu