

Md Sultanul Islam Ovi

Data Scientist | Distributed AI Researcher

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Education

George Mason University

Ph.D. in Computer Science (Current GPA: 4 / 4)

Fairfax, VA, USA

Aug. 2023 – Present

Professional Experience

George Mason University

Graduate Teaching Assistant, Department of Computer Science
Graduate Research Assistant

Fairfax, VA, USA

Aug. 2023 – Present

May. 2024 – Aug. 2024

Green University of Bangladesh

Lecturer, Department of Computer Science & Engineering

Dhaka, Bangladesh

Jun. 2021 – Jun. 2023

Beetles Cyber Security Ltd.

Cyber Security Intern

Dhaka, Bangladesh

Nov. 2019 – Dec. 2019

Selected Research Works

1. A Study on Distributed Strategies for Deep Learning Applications in GPU Clusters 📄

Md Sultanul Islam Ovi

(under review)

2. Quantitative Currency Evaluation in Low-Resource Settings through Pattern Analysis to Assist Visually Impaired Users 📄, Md Sultanul Islam Ovi, Mainul Hossain, Md Badsha Biswas (ICDM 25)

3. PhishGuard: A Multi-Layered Ensemble Model for Optimal Phishing Website Detection 📄

Md Sultanul Islam Ovi, Md. Hasibur Rahman, Mohammad Arif Hossain

(STI 24)

Technical Skills

- **Programming & Scripting:** Python, Java, Golang, C/C++, SQL, Bash
- **Data Science & Analytics:** Pandas, NumPy, Matplotlib, Seaborn, Tableau, Power BI
- **Tools & Platforms:** AWS, Azure, Linux, Docker, Kubernetes, Git, MLflow, HPC
- **LLMs & AI Systems:** PyTorch, TensorFlow, LangChain, Agentic AI frameworks, RAG, Model Compression

Technical Projects

Agentic RAG with CrewAI: Multi-Agent Knowledge Retrieval and Deployment 🌐

RAG, Groq, Tavily, AWS

- Implemented a multi-agent RAG system with CrewAI that integrates ChromaDB and Tavily web search, with Groq LLaMA models for retrieval and deployed on AWS using Docker.

Math2LaTeX: Equation OCR to LaTeX with Qwen2 VL 🌐

PyTorch, Qwen2-VL, LoRA, Gradio

- Fine-tuned Qwen2-VL with LoRA and quantization to convert equation images into LaTeX code, deployed as an interactive Gradio web app with live preview.

NaturalQuery: AI-Powered SQL Query Generator 🌐

GPT-4, FastAPI, MySQL, Streamlit

- Designed an AI system that converts natural language into optimized SQL queries with schema detection, multi-database support, and real-time execution via a Streamlit interface.

PDF2Table: AI-Powered Data Extraction from Research Papers 🌐

RAG, GPT-4, ChromaDB, Streamlit

- Developed a RAG-based pipeline using GPT-4 and ChromaDB to extract structured metadata from research papers and deployed it as a Streamlit app with Docker.

Certificates

Natural Language Processing 📄

Machine Learning A-Z: AI, Python & R 📄

Python for Everybody Specialization 📄

Math for Machine Learning and Data Science 📄

DeepLearning.AI TensorFlow Developer 📄

Programming with Google Specialization 📄