SYED SAMIN SADAF

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OBJECTIVE

Passionate about technology and driven to tackle real-world challenges with innovation and critical thinking.

EDUCATION

B.Sc. in Software Engineering

2021 - Present

Islamic University of Technology (IUT)

CGPA: **3.94** out of **4.00**

Higher Secondary Certificate (HSC)

2020

Notre Dame College, Dhaka GPA: **5.00** out of **5.00**

Secondary School Certificate (SSC)

2018

Motifheel Government Boys' High School, Dhaka

GPA: **5.00** out of **5.00**

EXPERIENCE

AI Engineer Intern

Kernel International Ltd., May 2024 - September 2024

- Developed a **Retrieval-Augmented Generation (RAG)** pipeline for medical study support, integrating LLMs like GPT-4 and LLAMA with vector databases (MongoDB, ChromaDB).
- Built an AI-driven chatbot to generate and evaluate medical questions using **LangChain** and prompt engineering.

PUBLICATIONS

• TYMBERT: Tiny Yet Mighty – Fine-Tuned and Compressed TinyBERT for High-Accuracy, Low-Resource NLP

2nd International Conference on Next-Generation Computing, IoT and Machine Learning (NCIM 2025)

- Enhanced the performance of TinyBERT through advanced knowledge distillation techniques.
- Applied quantization methods to reduce model size while maintaining accuracy.
- Conducted extensive benchmarking against other BERT variants to validate effectiveness.
- Full paper can be read here [ResearchGate]
- A Survey to Understand the experience of ChatGPT Usage among Engineering University Students in Bangladesh.

Technium Journal (2023)

- Contributed to designing the survey and collecting participant data
- Conducted analysis of user responses to identify key insights
- Full paper can be found here [Academia.edu]

PROJECTS

• The Red Owl - Connect IUTians Worldwide

GitHub Link

Node.js, Express.js, MongoDB, React.js

Built a platform to connect teachers, students, and alumni of IUT:

- Developed user profiles, authentication, and email verification.
- Implemented search and advanced filters for profiles, events, and blogs.

• CollaborativeChatGPT

GitHub Link

FastAPI, Next js, MongoDB

Created a tool for collaborative interaction with ChatGPT:

- Added error categorization and response correction.
- Integrated ChatGPT API for iterative feedback and model improvement.

• Rong- An Event Management Website

GitHub Link

React js, Node js, Express js, MongoDB

Worked on a 3-person team to build an event management website:

- Built customer profile along with email verification, booking tickets
- Customer review section
- Made the payment gateway using the Stripe API

SKILLS

Programming Languages
C, C++, JavaScript, Java, C#, Python
Backend Development
Node.js, Express.js, Django, FastAPI
Numpy, sci-kit-learn, Tensorflow, PyTorch
Pandas, Numpy, Unstructured Library
Other tools
Git, Docker, Langchain, Ollama

EXTRA-CURRICULAR ACTIVITIES

- Competitive Programming: Participated in contests on <u>Codeforces</u> (highest rating: 1070) and solved problems on <u>LeetCode</u>.
- Capture The Flag (CTF): Ranked 5th in CodeRush 1.0 IUT intra-CTF and competed in various interuniversity and online CTF contests.