

Tamim Shadman

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PROFESSIONAL SUMMARY

Software Engineer and AI specialist experienced in integrating robust machine learning models (PyTorch, Transformers, LLMs) with highly responsive frontends (React, TypeScript, Flutter) to build intuitive, high-performance digital products. Driven by a love for problem-solving, with a proven track record of turning complex datasets and powerful backend architectures into seamless, end-to-end user experiences.

EDUCATION

North South University <i>Bachelor of Science in Computer Science and Engineering</i>	2020 – 2025 Dhaka, Bangladesh
Mirpur Cantonment Public School & College <i>Higher Secondary Certificate (Science)</i>	2017 – 2019 Dhaka, Bangladesh

PROJECTS & RESEARCH

NewsFlow AI | React, TypeScript, AI APIs (BART, LLaMA, Gemini)

- Engineered an AI aggregator synthesizing 20+ APIs via smart routing, featuring a 4-tier LLM fallback system and data caching for optimized performance.

HybridSum: Adaptive Temporal Abstraction Learning | First Author (Under Review)

- Engineered a multi-level annotated dataset using a human-AI hybrid fusion technique to benchmark and train supervised and unsupervised summarization models.

Multimodal Video Summarization | 3D CNN, PyTorch, Audio Synthesis

- Developed a 3D CNN framework utilizing motion detection and audio synthesis to generate condensed summaries from large-scale datasets.

Action Video Analysis For Dark Environment | PyTorch, OpenCV, CUDA

- Developed a custom CNN with PyTorch, OpenCV, and CUDA to classify human actions in the ARID video dataset.

Decoding the Spectrum of Online Harassment | Transformers (BERT), NLP

- Developed a Multi-task Learning model using Transformers (BERT) to identify sentiment, hate speech, and aggression in social media text.

Explainable AI for Bangla Handwritten Text | OCR, LIME, SHAP

- Designed an OCR model with LIME & SHAP to convert Bangla handwritten text into digital format while ensuring interpretability.

EXPERIENCE

Updating Revised Strategic Transport Plan Bangladesh

Transport Data Analyst

July 2023 – July 2024

Dhaka, Bangladesh

- Processed a 10,000+ record dataset from various transport systems to accurately monitor national traffic flow.
- Monitored road conditions across Bangladesh to support national infrastructure planning.
- Collaborated with cross-functional teams to ensure accurate, timely data collection and evaluation.

SKILLS

Programming Languages : Python, R, Java, JavaScript, TypeScript, C, C#, SQL, HTML, CSS, Dart

AI & Machine Learning : Neural Networks (CNN, RNN), Transformers, NLP, Computer Vision, Regression, Classification

Frameworks & Tools : React, Vite, TensorFlow, PyTorch, Scikit-Learn, Pandas, OpenCV, Hugging Face, Django, FastAPI, Git

Databases : MySQL, PostgreSQL, MongoDB, Firebase (Firestore/Auth)