# Nayeem Islam

# Experience

#### Senior System Analyst | Synesis IT PLC, Dhaka, Bangladesh

Jun 2024 - Present

#### Big Meeting Solution

- Developed a full-stack web application that will be used to stream a virtual meeting to 4000+ people
- Led a technical team to build a chat system and a streaming platform around it to accommodate the user requirements
- Integrated this system seamlessly with *Convay*(a video conferencing solution) so users attending this system have an interactive experience

### Voice Based Chatbot

- Led a technical team to build an ML/DL based voice and text chat bot that is capable of answering questions based on user query in *Bangla*, also can ask user relevant questions
- Fine tuned a Bangla Wav2vec2 ASR model, also built a pipeline system to accommodate various Bert models and Embedding models
- Integrated this system with a Asterisk server so users can call and chat with this bot

#### System Analyst | Synesis IT PLC, Dhaka, Bangladesh

Apr 2022 - May 2024

#### Transcription System for Convay

- Implemented a multi lingual transcription system for *Convay*, which is capable of separating user voices from an online meeting to produce accurate transcriptions
- Fine tuned a Whisper medium ASR model to accommodate Bangla
- Analyzed several problematic use cases that occur only in an online meeting, implemented a system that is capable to tackle most of these issues
- Built a pipeline system based on VAD, Denoisers and LUFS that can provide error-free accurate transcription in both real-time and post-processing scenarios
- Also led a team to built a pipeline system based on Whisper diarization to identify and generate transcriptions from a recording of a meeting

# Automatic Meeting Minutes Generation

- Led a team to build an automated meeting minutes solution based on several pre-defined templates
- Integrated popular state of the art *LLM* models to generate meeting minutes based on templates and user input, from *Convay* meeting transcription
- Integrated a IndicTrans2 model to provide multi lingual meeting minutes as well

#### Analyst Programmer | Synesis IT PLC, Dhaka, Bangladesh

Nov 2020 – Apr 2022

# Denoiser System for Convay

- Integrated an RNN denoiser model to Convay's audio system, which utilizes a WASM module to provide a better audio experience even on smaller devices
- Also added an automated *VAD* service that will unmute a meeting user's microphone only when he is talking, resulting a better noise-free design

#### Senior Programmer | Synesis IT PLC, Dhaka, Bangladesh

Jun 2018 - Oct 2020

# Ekpay - An Integrated Platform for Utility Bill Payment

- Designed and built a billing platform that is integrated with most of the utility billers of Bangladesh
- Developed a payment aggregator platform that integrates with numerous payment gateways of banks in Bangladesh, offering a seamless bill payment experience from a unified platform

# Programmer | Synesis IT PLC, Dhaka, Bangladesh

#### Automation Systems for Organisations

• Designed and built automation platforms that digitalize related time consuming paper based processes, for Bangladesh Standards and Testing Institution(BSTI) and Bangladesh Bureau of Statistics(BBS)

#### EDUCATION

# Bangladesh University of Engineerting and Technology

B.Sc. in Computer Science and Engineering

Feb 2011 – Mar 2016 *CGPA*: 3.12/4.0

# SKILLS

Languages: Java, C#, Python, JavaScript/TypeScript, SQL

Frameworks: Spring Boot, ASP.NET, FastAPI, ReactJS, Angular

Concepts: System Design, Stateless, Caching, Authentication, JWT, OAuth2, Encryption, Load Balancing, Proxy, CDN, CI/CD, Design Patterns, Microservice, Distributed System, Pub Sub, Storage

Tools: Git, Docker, JUnit, Linux, Cursor, VS Code, IntelliJ IDEA, Azure Cloud Services, GraphQL, Oracle DB, MySQL, PostgreSQL, MongoDB, Liquibase, RabbitMQ, Apache Kafka, Redis, Eureka, Hystrix, Spring Cloud Gateway, Maven, Jenkins, Elasticsearch, Prometheus, Grafana, NPM, IATEX

Libraries: WebRTC, JQuery, Pandas, NumPy, Matplotlib

# ACHIEVEMENTS

- Received Best Team Lead Award on Synesis IT PLC Townhall Q3, 2024
- Completed 500+ problems on Leetcode