

SHARIAR KABIR

Research And Development Engineer

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TECH STACK

Languages

Python Java

JavaScript Scala C

C++ ETEX SQL

TypeQL | Assembly

Library

Pandas Datasets

ScikitLearn OpenCV

Transformers

TensorFlow | PyTorch

SocketIO SpaCy

OpenGL

Frameworks

Flask FastAPI RASA

Spark | PySpark

OpenWhisk PyQT

Tools

Keycloak | Git | Maven

NginX Docker

Ansible AWS

PostgreSQL TypeDB

Grafana

ABOUT ME

I am an avid researcher deeply passionate about exploring the convergence of natural language processing and human-computer interaction. With a solid foundation in software development and engineering, I bring a unique blend of practical experience and academic insight to my work. My journey is driven by a curiosity to improve human-machine interaction, fostering innovation at this intersection.

EXPERIENCE

R&D Engineer | Celloscope Limited

- **September 2020 Present**
- Dhaka, Bangladesh
- Building ML-based applications for intelligent broad user-facing solutions.
- Bangla voice-based AI chatbot for banking applications
- OCR free document key information extraction
- Service showcase and usage monitoring systems

NLP and Data Scientist | Part time | MedAl Bangladesh Limited

August 2021 - Present

- Dhaka, Bangladesh
- Data analysis and data mining
- Audio data collection portal
- Training and serving of ASR model and other ML models.

Software Engineer | Cokreates Limited

- **May 2019 August 2020**
- Dhaka, Bangladesh
- Deployment automation of the web apps and micro-services in Docker
- Gateway configuration using NGINX reverse proxy
- Document generation scripts from Google Sheets

LEARNING

NLP NLU

Machine learning

Data analysis

Data mining

Image processing

Web Sockets

EDUCATION

MSc | Bangladesh University of Engineering and Technology

April 2019 - Present

Dhaka, Bangladesh

- GPA: 3.50
- Thesis: Dynamic Resource Allocation for Workloads in Serverless Architecture using Collaborative Filtering. Under the supervision of Dr. Muhammad Abdullah Adnan
- Coursework: Bioinformatics Algorithms, Distributed Computing Systems, Data Mining, Data Management in the Cloud, Advanced Database Systems, Advanced Artificial Intelligence.

LANGUAGES

Bengali: Native

English: C1

REFERENCES

Dr. Mamunur Rashid

- in mamunrashid-bio

Assistant Professor in Bioinformatics, University of Birmingham

PUBLICATIONS

February 2015 - April 2019

Muhammad Abdullah Adnan

GPA: 3.53

2023

SynthNID: Synthetic Data to Improve End-to-end Bangla Document Key Information Extraction

 Thesis: Active Learning on Big Data; A research on how we can apply active learning on big data in a distributed cloud computing system. Under the supervision of Dr.

Coursework: Machine Learning, Pattern Recognition, Computer Graphics, Artificial

Intelligence, Digital Image Processing, Data Structures, Database, Operating Systems, Software Development, Computer Architecture, Microprocessors and Microcon-

trollers, Computer Networks, Concrete Mathematics, Discrete Mathematics, Numer-

ical Methods, Software Engineering and Information System Design, Compiler, Data Communication, Digital Logic Design, Structured Programming Language, Object

BSc | Bangladesh University of Engineering and Technology

Oriented Programming Language, Theory of Computation

BLP Workshop at EMNLP

Dhaka, Bangladesh

Dr. Shyama Shaha

- in shyama-saha-phd-20953a27

Associate Director of Data Analytics, Exscientia

Dr. Muhammad Abdullah Adnan

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- ■ abdullah.adnan@gmail.com

Professor in CSE, Bangladesh University of Engineering and Technology

RECENT PROJECTS

Voice Banking Chatbot |

- **i** January 2022 March 2023
- Celloscope Ltd.
- Bangladesh's pioneering Voice-based AI Chatbot for seamless banking activities.
- Bangla Voice-based AI chatbot using state-of-the-art NLU engine
- Dynamic behaviour based on the input command

ASR System for Patient Symptoms

- **j** January 2022 February 2023
- MedAl Bangladesh Ltd.
- Bangla Voice-based ASR system for medical symptoms
- Symptoms spoken by patients are recognized and mapped to the symptoms database
- Finetuned for noisy environment common in metropolitan areas in Bangladesh

SynthCases Creator and Disease Classifier

- **May 2023 December 2023**
- MedAl Bangladesh Ltd.
- A recommendation system for diseases based on patients' symptoms
- The classier is trained on synthetic data generated to reflect real-world demography
- Takes into account patients' risk factors family history and medical history

Audio Data Collection Portal |



- **i** January 2023 March 2023
- MedAl Bangladesh Ltd.
- Audio collection portal using React frontend and Python-Flask Backend
- Data storage in PostgreSQL, object storage in S3
- User authentication using AWS Cognito