Sakib Chowdhury

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Graduate Research Fellow & PhD Student in Robotics, Former Machine Learning Research Engineer

Experienced in the intersection of robotics and machine learning. Experienced in multimodal computer vision and natural language models. Currently studying robot perception for high speed decision making and controller design.

Education

Stevens Institute of Technology
New Jersey, USA
PhD Student (Studying Robotics)
07/2023 – Present

Bangladesh University of Engineering and Technology
New Jersey, USA
Bachelors, Department of EEE
03/2017 – 03/2022

Publications

Google Scholar

- SpectroCardioNet: An Attention Based Deep Learning Network Using Triple-Spectrograms of PCG Signal for Cardiac Disease Detection
- A Simulated Intelligent Pixelated Electrode Array for Surface Electromyography Sensors
- CovTANet: a hybrid tri-level attention based network for lesion segmentation, diagnosis, and severity prediction of COVID-19 chest CT scans
- SynthNID: Synthetic Data to Improve End-to-end Bangla Document Key Information Extraction
- SHONGLAP: A Large Bengali Open-Domain Dialogue Corpus

WORK HISTORY

Graduate Research Fellow
New Jersey, USA
Stevens Institute of Technology
07/2023 – Present

- Studying robot motion control in complex dynamic scenarios
- Studying policy design for learning table tennis with robotic arm

Research Engineer (Machine Learning)
Dhaka, Bangladesh
Celloscope
11/2021 - 07/2023

- Designed vision transformer based text extraction systems from Bangla document images
- Designed Bangla speech-to-speech chatbot for banking application, e.g., fund transfer, balance inquiry, FAQ etc.
- Designed voice signature based speaker verification system

Assistant Researcher
Dhaka, Bangladesh
Bangladesh University of Engineering and Technology
11-2020 - 03-2021

- Developed a system that detects derailment from upto 1200 meters distance by sensing the vibrations generated from the movement of train.

Intern Engineer (Hardware Design)
Dhaka, Bangladesh
Adorsho Praisheba Ltd.
07-2017 - 11-2020

- Contributed to the development of BOLUS, an AI powered IoT hardware that is swallowed by the cattle in cowsheds. It monitors the health condition of the cow and a farmer can track the health report with a smartphone.