Anik Saha

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EDUCATION

• Rensselaer Polytechnic Institute

Troy, NY

M.S. Electrical Engineering; GPA: 3.79/4

Aug 2017 - Aug 2023

- Thesis: Neural Models for Causal Information Extraction using Domain Adaptation
- Relevant Coursework: Deep Learning, Computational Optimization, Machine Learning, Natural Language Processing, Time Series Analysis, Data Analytics, Machine Learning and Optimization
- Bangladesh University of Engineering and Technology

Dhaka, Bangladesh

Sep 2010 - Sep 2015

B.S. Electrical and Electronic Engineering; GPA: 3.90/4

SKILLS

Deep Learning Frameworks: PyTorch, TensorFlow

Machine Learning Tools: NumPy, SciPy, scikit-learn, NLTK, CoreNLP, spaCy, Gensim

EXPERIENCE

• ImmersiveTouch Inc.

Chicago, IL

AI Engineer Trainee

Nov 2023 - Present

- Implemented a facial bone segmentation model to significantly reduce manual annotation time.
- Developed a fast and accurate landmark localization model predicting 28 anatomical landmarks.

• IBM Research

Yorktown Heights, NY

Research Extern

Summers 2021; 2022

- Improved domain adaptation performance of neural models for causal information extraction from text.
- Implemented span-based and sequence-tagging models for causality extraction leading to 1st position in the Fincausal Challenge 2022.

Research Intern Summer 2020

- Improved performance of LayoutLM by 5% by training the model to predict 2D coordinates of textual fields.
- Published the layout-aware document understanding model in KDD Document Intelligence Workshop 2022.

• Rensselaer Polytechnic Institute

Troy, NY

Research Assistant

Jan 2019 - Aug 2023

- Developed a novel knowledge distillation method from BERT to multi-sense word embeddings that improved the ARI score in the word sense induction task by 25% to 125% compared to the state-of-the-art.
- Conducted extensive experiments to develop a strong baseline for sequence-tagging and span-based pretrained LLMs on the causal information extraction task in 4 data sets from different domains.
- Integrated linguistic information in domain adaptation for large language models on the causal information extraction task leading to 5% to 25% improvement compared to the DANN model.

Teachina Assistant

Aug 2017 - Dec 2018

Held office hours, developed assignment solutions and graded assignments for Electric Circuits, Digital
Electronics and Introductory Machine Learning courses with classes ranging from 40 to 80 students.

• Semion Inc.

Dhaka, Bangladesh

Sep 2016 - Jul 2017

- $Machine\ Learning\ Researcher$
- Utilized distributed computing techniques to speed up training in multiple nodes of a supercomputer.

Developed LSTM models with hierarchical structures for sentiment analysis of large documents.

• Daffodil International University

Dhaka, Bangladesh

Lecturer, Department of Electrical and Electronic Engineering

May 2016 - Aug 2016

 Prepared assignments, exams and delivered lectures for undergraduate courses on Introductory Computer Programming, Analog Electronics and Electric Machines.