

Anik Saha

✉ aaniksaha@gmail.com • 🌐 aniksh.github.io • 📍 Knoxville, TN
🌐 [linkedin.com/in/aniksh](https://www.linkedin.com/in/aniksh) • 🐙 github.com/aniksh • 🎓 Google Scholar

EDUCATION

- **PhD in Computer Science** Aug 2026 - Present
University of Tennessee, Knoxville
– Research Topic: Constrained Learning for Generative Models
- **MS in Electrical Engineering** Aug 2017 - Aug 2023
Rensselaer Polytechnic Institute
– 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
- **BS in Electrical and Electronic Engineering** May 2010 - Sept 2015
Bangladesh University of Engineering and Technology
Dhaka, Bangladesh

SKILLS

AI Frameworks: PyTorch, TensorFlow, Hugging Face Transformers, MONAI

Machine Learning: NumPy, scikit-learn, Pandas, NLTK, SimpleITK

Programming: Python, Shell scripting, Git, C++, MATLAB

EXPERIENCE

- **Graduate Research Assistant**, University of Tennessee, Knoxville – Knoxville, TN August 2026 – Present
– Developing a constrained optimization framework to control diffusion model behavior via principled guidance weights, while studying compositionality of learned features across conditioning tasks.
- **AI Engineer**, ImmersiveTouch Inc. – Chicago, IL Mar 2024 – Aug 2026
– Designed and deployed 3D CT scan segmentation models based on UNet using PyTorch and MONAI, reducing manual segmentation time by over 60%
– Enhanced the segmentation model accuracy by debugging data annotation issues, modifying the UNet architecture, optimizing memory usage and tuning inference parameters
– Integrated the models into 3D Slicer and streamlined their use to improve the manual segmentation process
- **AI Engineer Trainee**, ImmersiveTouch Inc. – Chicago, IL Nov 2023 – Feb 2024
– Trained a 3D segmentation model for mandible-maxilla from CT scans and integrated it into 3D Slicer
- **Research Extern**, IBM Research – Yorktown Heights, NY Summers 2021 and 2022
– Implemented sequence-tagging models for causality extraction and ranked 1st at Fincausal Challenge 2022
– Improved domain adaptation performance by incorporating linguistic information in the transformer model
- **Research Intern**, IBM Research – Yorktown Heights, NY Summer 2020
– Improved F1 score of LayoutLM by 5% by training the model to predict 2D coordinates of textual fields
– Published this document understanding model in the KDD Document Intelligence Workshop 2022
- **Graduate Research Assistant**, Rensselaer Polytechnic Institute – Troy, NY Jan 2019 – Aug 2023
– Developed a novel knowledge distillation method from BERT to multi-sense word embeddings with distributed training in PyTorch that improved the ARI score in the word sense induction task by 25% to 125%
– Implemented a strong baseline for sequence-tagging and span-based pretrained LLMs on the causality extraction task using PyTorch with detailed comparative analysis on data sets from diverse domains
– Integrated linguistic information in domain adaptation for large language models on the causal information extraction task leading to a 5% to 25% improvement compared to the DANN model
- **Graduate Teaching Assistant**, Rensselaer Polytechnic Institute – Troy, NY Aug 2017 – Dec 2018
- **Machine Learning Researcher**, Semion Inc. – Dhaka, Bangladesh Sept 2016 – Jul 2017
– Built hierarchical LSTM models in TensorFlow for sentiment analysis of large documents.
- **Lecturer, EEE**, Daffodil International University – Dhaka, Bangladesh May 2016 – Aug 2016