Anik Saha

518-428-2758 • aaniksaha@gmail.com
linkedin.com/in/aniksh • aniksh.github.io • scholar.google.com/citations?user=dzSgD7sAAAAJ

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**
  B.S. Electrical and Electronic Engineering; GPA: 3.90/4 *Sep 2010 - Sep 2015*

Skills

Deep Learning Frameworks: PyTorch, TensorFlow

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

Experience

- **ImmersiveTouch Inc.** **Chicago, IL**
  AI Engineer *Mar 2024 - Present*
  - Improved the segmentation performance with a high resolution model and integrated into surgial planning workflow.
  - Developed models to segment teeth roots and detect facial nerves from CT scans.

  AI Engineer Trainee *Nov 2023 - Feb 2024*
  - Trained a 3D segmentation model for mandible-maxilla from CT scans and integrated into 3D Slicer.
  - Developed a landmark localization model predicting anatomical landmarks in maxillofacial CT scans.
- **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.

  Teaching 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**
  Machine Learning Researcher *Sep 2016 - Jul 2017*
  - 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*
  - Delivered lectures, prepared and evaluated assignments and exams for undergraduate courses.