Mohammed Rakib

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🔗 LinkedIn ⬡ Github 🎓 Google Scholar

Education

Doctor of Philosophy in Computer Science **August 2023 – Present**
Oklahoma State University - Stillwater, OK, USA ***GPA: 3.79***

Bachelor of Science in Computer Science and Engineering **September 2017 – September 2021**
North South University - Dhaka, Bangladesh ***GPA: 3.96***

Research Interest

- Computer Vision • Multimodal Learning • NLP • Model Compression Techniques

Technical Skills

Programming Languages: Python, Java, C, C++, Shell Scripting, Arduino, HTML, SQL, x86 Assembly
AI & Data Science: PyTorch, TensorFlow, Keras, OpenCV, Scikit-learn, Hugging Face, Pandas, Matplotlib
Web Development: Django, FastAPI, Flask, Nginx, HTML, CSS, JavaScript
Version Control: Git, Bitbucket
Databases: MySQL, MongoDB, NoSQL, Redis
DevOps & Containerization: Docker, Kubernetes
Cloud Computing: Amazon EC2, AWS Services
Big Data Technologies: Hadoop, Apache Spark

Professional Experience

Data Scientist & Machine Learning Engineer **September 2022 – July 2023**
NeovoTech Ltd. *Dhaka, Bangladesh*
- Create crawlers to scrape news articles from various websites and store them in an AWS S3 bucket.
- Create, maintain, and deploy text translation and text summarization pipelines.

Machine Learning Intern **June 2022 – August 2022**
NeovoTech Ltd. *Dhaka, Bangladesh*
- Collaborated with colleagues to prepare a web crawler that crawls Swedish news text.
- Contributed to improving the Neural Machine Translation (NMT) pipeline from Swedish to English text.

Academic Experience

Graduate Research Assistant **August 2023 – Present**
Complex Systems Lab, OSU *Stillwater, OK, USA*
- Conducting research to refine soil moisture estimation techniques using crop imagery for a USDA-funded project.
- Exploring advancements in soil moisture prediction by adapting existing time-series models and modifying deep learning architectures to improve accuracy.
- Developing a multimodal forecasting approach by merging tabular meteorological data with soil imagery to elevate prediction reliability.

Graduate Teaching Assistant **August 2023 – Present**
Computer Science Department, OSU *Stillwater, OK, USA*
- Design & Implementation of Operating Systems 1 (Fall 2023)
- Computer Science II - Intro to Object Oriented Programming (Spring 2024)

Research Assistant **September 2021 – September 2022**
Apurba-NSU R&D Lab *Dhaka, Bangladesh*
- Collaborate with fellow RAs to train, fine-tune, and deploy various deep learning models for image classification, OCR, ASR, sentence similarity, masked language modeling, QA, and NER.
- Conduct research in model compression techniques (pruning, quantization, and knowledge distillation), analyze findings, and present weekly reports.

Voluntary Activities

Assisted in fundraising for SCARS, a non-profit, to support the underprivileged, enhancing community support & donations.

Instructed Pytorch-based Deep Learning workshops, promoting skill development in neural networks.