

ABU AWAL MD SHOEB

Senior ML Scientist — Python • Applied ML/NLP • Low Latency & Production ML Systems

@ johnshoeb@gmail.com

📞 +1-815-981-1893

LinkedIn linkedin.com/in/abushoeb

Github github.com/abushoeb

Google Scholar

EXPERIENCE

- ML Scientist with 10+ years building production-grade ML systems, specializing in NLP and LLMs. Expert in Python (NumPy, pandas, PyTorch, scikit-learn), transformers (BERT/LLMs), prompting, zero-shot and fine-tuning, and RAG pipelines.
- Led the end-to-end model lifecycle—from experimental design and rigorous offline eval/backtesting to scalable training, low-latency inference with TorchServe, and monitoring using AWS (Sagemaker, Cloudwatch, Bedrock).
- Build reliable, scalable systems and care about evaluation rigor, reproducibility, and shipping research to production.
- Proficient in large/dirty data, feature engineering, and distributed computing (Spark). Ph.D. in Computer Science; focused on turning noisy text and alternative data into robust, reproducible signals.

Senior Machine Learning Scientist

Solventum (Formerly 3M Health Care Division)

📅 April 2021 - Present

📍 Remote, New Jersey

- My primary responsibilities involve analyzing unstructured clinical text and developing various ML models using state-of-the-art NLP techniques. My daily tasks include model training and deployment using PyTorch, Sagemaker, TorchServe, and Docker in AWS.
- Tech Stack: Python, PyTorch, TorchServe, Sagemaker, Docker, GitHub Actions, Kibana, Bedrock Gen AI, Neptune Graph Database

Summer Research Intern

Nokia Bell Labs

📅 Summer 2018 & 2017

📍 Murry Hill, New Jersey

- Analyzed data containing users' requirements and job descriptions to allocate optimal resources from a shared GPU cluster
- Developed a module for Bell Lab's internal Deep Learning Training System to reduce the overall training time of jobs and released it under a heterogeneous cluster using Kubernetes
- Technologies: Python, Kubernetes, Ansible, Grafana, Docker

Software Engineer Intern

Medsnap LLC

📅 Summer 2015 & 2014

📍 Birmingham, Alabama

- Researched drug-related data and images and developed a visualization tool to help to identify counterfeit medication
- Technologies: Vagrant, PHP, Amazon EC2, d3, JavaScript, MSSQL

Founder & CEO

Criss Cross Computers

📅 2011 - 2020

📍 Sylhet, Bangladesh

- Developed and implemented the first online service for students at SUST to make payments and withdraw transcripts

EDUCATION

Ph.D. in Computer Science

Rutgers University

📅 Spring 2021

📍 New Brunswick, NJ

- Thesis Title: Computational Methods to Understand the Association between Emojis and Emotions [PDF]

RECENT PUBLICATIONS

Selected First Authored Paper (2400+ Citations)

- Assessing Emoji Use in Modern Text Processing Tools 🧑, ACL 2021 [Paper] [Github]
- EmoTag1200 🌟 : Understanding the Association between Emojis 😊 and Emotions 😎, EMNLP 2020 [Paper] [Video] [Github]

ACTIVITIES

Graduate Mentor, Rutgers University

Douglass DIMACS Computing Corps (DDCC)

PC Member and Reviewer:

ACL, EMNLP, CoNLL, SocialNLP, Computational Intelligence

IBE Certification

Institute for Biomedical Entrepreneurship

📅 2019

📍 Boston, MA

President

Rutgers Graduate Student Association (GSA)

📅 2016-17

📍 New Brunswick, NJ

Emerging Young Talents

Prothom Alo - major daily newspaper

📅 April 2010

📍 Bangladesh

- For coordinating and developing first mobile SMS based registration system for undergraduate admission in Bangladesh

SKILLS

Languages: Python, Java, Scala, C, PHP, HTML,

JavaScript, CSS, SQL Technologies: AWS (Sagemaker, Bedrock, Cloudwatch), PyTorch, HuggingFace, Docker, Git, Kubernetes, LLM, RAG, Torch-

Serve, LangFuse, MLFlow