A S M NASIM KHAN

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OBJECTIVE

Motivated and research-driven Computer Science graduate seeking to contribute to a dynamic research group as a graduate assistant or research collaborator. With a strong foundation in programming, machine learning, and web technologies—as well as hands-on teaching and project experience—I aim to support innovative research while advancing my academic journey. Passionate about NLP, data science, and system design, I am committed to scholarly growth, collaboration, and long-term impact in computing.

EDUCATION

Bachelor of Computer Science & Engineering	2019 - 2023
BRAC University, Dhaka	CGPA: 3.83/4.00
Higher Secondary Certificate (HSC) Dhaka	2015 - 2017
Rajuk Uttara Model College, Dhaka	GPA: 4.33/5.00
Secondary School Certificate (SSC)	2009 - 2015
Cumilla Zilla School, Cumilla	GPA: 5.00/5.00

EXPERIENCE

Adjunct Lecturer at BRAC University   Oct 2024 – Present

- Teaching core undergraduate courses (CSE110, CSE220, CSE321, CSE330, CSE370, CSE471), covering programming, data structures, operating systems, databases, and system design.
- Conducting engaging lectures and lab sessions, updating materials to reflect current industry practices, and guiding students through hands-on projects and applied learning.

Support Instructor — Data Science & Machine Learning, *Interactive Cares — Remote —*   May 2025 – Present

- Delivering regular live support sessions, conceptual classes, and handled quiz/assignment evaluation for the Data Science & Machine Learning Batch 2 course.
- Providing academic and technical support through Discord/Facebook, while leading webinars and online promotions to boost learner engagement.

Course Instructor, Complete Python Programming with Django — *EShikhon.com (Remote)*   Apr 2024 - Present

- Teaching a two-level course covering Python programming, OOP, Git, SQL, algorithms, and Django, with a focus on hands-on learning and real-world applications (e.g., blog project).
- Designing assessments, reviewing student code, and leading live coding sessions to enhance conceptual understanding and practical development skills.

Digitalyst Intern at Banglalink Digital Communications Ltd, *Gulshan 1, Bangladesh*   Feb 2024 - May 2024

- Developed a script generator for GBTS Cell as part of the Banglalink OMC App project, utilizing PHP, Laravel, JavaScript, JQuery, and MySQL to deliver efficient solutions.
- Collaborated effectively with the HR team to manage and streamline the intern requirements process.

Student Tutor & Mentor at BRAC University   May 2022 – Dec 2023

- Taught and supported Python-based courses (CSE110, CSE111, CSE220, CSE221), conducted lab sessions, reviewed assignments, and held weekly consultations to enhance student learning.
- Mentored first-year students through the Office of Academic Advising (OAA), organized advising sessions, facilitated academic transitions, and conducted tutorials for 100-level courses.

RESEARCH EXPERIENCE

Context and Semantic Aware Intelligent Reference Validation Method for Detecting Hallucinated and Dangling References in Scholarly Publications   Jan 2023 – Dec 2023

Undergraduate thesis under the supervision of Dr. Md. Golam Rabiul Alam and Dr. Farig Yousuf Sadeque.

- Developed a context- and semantics-aware NLP framework to detect hallucinated and dangling references in scholarly publications—issues increasingly common due to generative AI.
- Proposed an end-to-end reference validation pipeline utilizing sentence embeddings, topic modeling, and a custom similarity algorithm to assess the validity of references.
- Constructed a novel dataset by collecting and annotating citations from IEEE Xplore and PubPeer, incorporating both valid and invalid references, with quality control via expert review and cross-validation.

- Tackled class imbalance through a hybrid of AI-generated and manually crafted synthetic samples, improving the model's generalizability and robustness.
- The research is currently being prepared for submission to *PLOS ONE*.

Hotel Review Analysis on Machine Learning and Deep Learning Based on Pre-trained GloVe Embedding
May 2023 – Dec 2023
Undergraduate Research Project (CSE431) under the supervision of Annajiat Alim Rasel

- Developed a sentiment-based lodging recommendation system using user reviews and pre-trained GloVe word embeddings.
- Conducted comprehensive data preprocessing and feature extraction to prepare text data for model training.
- Evaluated various machine learning models and achieved highest accuracy with an RNN-LSTM architecture, demonstrating superior performance in capturing textual patterns.

SKILLS

Technical Skills	Python, Java, JavaScript, C/C++ Basic, PHP, Laravel, MySQL, HTML Basic, CSS Basic, Django framework, RESTful API, Vercel, Git and Github, LaTeX
Software Skills	Microsoft Power BI, Microsoft Office (Excel,Word,PowerPoint), Photoshop

PROJECTS

- ❏ **E-Pathshala** Built an online skill learning website. Users can buy courses, upload courses and Admin has their special management feature. This project was implemented using Laravel, PHP, MySQL and MVC architecture. Built another version by using Django, CSS and HTML.(Try it here)

- ❏ **Laptop Price Prediction** Developed a machine learning model to predict laptop prices using Python and various regression techniques. The project involved extensive data preprocessing and feature engineering on a dataset containing laptop specifications such as CPU, RAM, GPU, screen size, storage, and price. I used data visualization techniques like histograms, bar plots, and heatmaps to explore trends and identify key factors that influence the price of laptops. (Try it here)

- ❏ **NLP based Depression Detection** Build a project that Detectes Depression from social media posts using Sentiment analysis, NLP, Machine Learning and Deep Learning. (Try it here)

- ❏ **Tic-Tac-Toe Game** developed a Tic-Tac-Toe game using Python and OpenGL, which significantly enhanced my programming and graphical rendering skills. The project involved implementing game logic to manage player moves, input validation, and win detection. I designed and rendered an interactive game board with OpenGL, which improved user experience through effective visual feedback. This experience deepened my understanding of graphical programming and real-time user interaction, allowing me to apply creative solutions to enhance gameplay. (Try it here)

AWARDS

- ❏ **VC's List** Awarded 3 Semesters
- ❏ **Dean's List** Awarded 3 Semesters
- ❏ **Merit Based Scholarship** Awarded 50% merit based Scholarship at BRAC University

CERTIFICATES

- ❏ **Command Line in Linux** Course offered by Coursera (Show credential)
- ❏ **Python Data Structures** Course offered by Coursera (Show credential)
- ❏ **Using Python to Access Web Data** Course offered by Coursera (Show credential)
- ❏ **Cleaning Data in Python** Course offered by DataCamp (Show credential)
- ❏ **Feature Engineering for Machine Learning in Python** Course offered by DataCamp (Show credential)
- ❏ **Introduction to Natural Language Processing in Python** Course offered by DataCamp (Show credential)
- ❏ **Introduction to Power BI** Course offered by DataCamp (Show credential)
- ❏ **Introduction to Python** Course offered by DataCamp (Show credential)
- ❏ **Machine Learning with Tree-Based Models in Python** Course offered by DataCamp (Show credential)

REFERENCES

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