

Ayan Antik Khan

Software Engineer & Researcher

[Website](#) | [Google Scholar](#) | [GitHub](#) | [LinkedIn](#)

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RESEARCH INTERESTS

- Trustworthy NLP
- Low-Resource & Multilingual NLP
- Cognition & Reasoning in LLMs
- Application of NLP in Human-AI Interaction

WORK EXPERIENCE

IQVIA

Software Development Engineer

June 2023-present

PUBLICATIONS

An Empirical Study On The Characteristics Of Bias Upon Context Length Variation For Bangla

• Jayanta Sadhu*, **Ayan Antik Khan***, Abhik Bhattacharjee, Rifat Shahriyar

Keywords: Bias & Fairness, Low-Resource NLP

Accepted for poster presentation at Findings of [ACL 2024](#)

[Preprint](#) | [Proceedings](#)

Multi-ToM: Evaluating Multilingual Theory of Mind Capabilities in Large Language Models

• Jayanta Sadhu*, **Ayan Antik Khan***, Sanju Basak, Noshin Nawal, Abhik Bhattacharjee, Rifat Shahriyar

Keywords: LLM Reasoning, Multilingual NLP

Under review at [COLING 2025](#)

(* Equal contribution)

EDUCATION

Bangladesh University of Engineering and Technology

B.Sc. in Computer Science and Engineering

2018-2023

CGPA: 3.85/4.00

Notre Dame College

Higher Secondary School Certificate

2015-2017

GPA: 5.00/5.00

St. Joseph Higher Secondary School

Secondary School Certificate

2007-2015

GPA: 5.00/5.00

PROJECTS

Bangla Named-Entity-Recognition [↗](#)

Amazon SageMaker | Jupyter Notebook

January 2023

- ML & DL Models trained for the Bangla Complex Named Entity recognition task
- Developed during the NLP Hackathon organized by BdOSN in collaboration with AWS

Grammatical Error Detection and Correction for Bangla [↗](#)

Google Colab

April 2023

- Creation of synthetic dataset containing grammatical errors from famous Bangla newspapers
- Finetuning of Bangla Language Models (BanglaBERT, BanglaT5) to detect and correct grammatical errors

- Developed under the supervision of **Dr. Mohammed Eunus Ali** for CSE 472 Machine Learning Sessional course term project

Vectorized Convolutional Neural Network from Scratch [↗](#)

Google Colab | Kaggle Notebook

March 2023

- A Convolutional Neural Network model from Scratch without any external libraries
- Trained on Bengali Handwritten Digits from the NumtaDB Dataset.
- Developed as the final assignment for CSE 472 Machine Learning Sessional course

Notabene [↗](#)

React.js | Django REST Framework | PostgreSQL

June '22 - September '22

- A browser based knowledge management tool
- Based on taking notes & easy highlighting of any article on the web.

TCP Faster Recovery [↗](#)

ns-3

January '22 - February '22

- An ns3 based implementation of a TCP Congestion Control algorithm.

**More on [Github](#)

TECHNICAL SKILLS

Languages: Python, C++, Java, Typescript, HTML, CSS, SQL

Machine Learning: PyTorch, Scikit-Learn, Tensorflow, wandb, pandas, numpy

Libraries: ReactJS, ns3

Frameworks: Django, Angular, Bootstrap

DBMS: PostgreSQL, Oracle

Misc: Git, Shell Script

NOTABLE ACADEMIC COURSES

Machine Learning, Artificial Intelligence, Simulation and Modelling, Bioinformatics, High Performance Database Systems, Operating Systems, Computer Security, Computer Networking, Computer Graphics, Compiler Design, Software Development, Microprocessors and Microcontrollers, Information System Design, Object Oriented Programming

POSITIONS OF RESPONSIBILITY

Organizer, BUET CSE Festival

2022

Executive Member, Scintilla Science Club

2013-2015

AWARDS & HONOURS

- Receptient of **IQVIA Gold Impact Award** for contributions to the team
- Receptient of **RISE Research Grant Award** for undergraduate thesis.
- Receptient of **Dean's List** awards (6 out of 7 graded terms) & **University scholarships** for academic excellence.
- Receptient of **Scholarships** in secondary and higher secondary level.

CERTIFICATIONS

Structured Machine Learning Projects [↗](#)

Coursera | Deeplearning.ai

Issued: August '20

Deep Learning Specialization [↗](#)

Coursera | Deeplearning.ai

Issued: August '20

- Neural Networks and Deep Learning [↗](#)
- Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization [↗](#)
- Convolutional Neural Networks [↗](#)
- Sequence Models [↗](#)