# Mohammad Saim

(283) 210-8567 | ✉ saimmd@mail.uc.edu | ⌨ Github | 🎓 Google Scholar

## RESEARCH INTERESTS

Natural Language Processing, Vision Language Modeling, Deep Learning, Decentralized Applications

## EDUCATION

**University of Cincinnati | PhD in Computer Science and Engineering**                    *2024 - Present*

**Coursework:** Intelligent Data Analysis (6052), Natural Language Processing (6034), Distributed Operating Systems (6029), Advanced Algorithms (7081) , Intelligent Agents (7034), Advanced Natural Language Processing (7052)

## TECHNICAL SKILLS

**Languages** : C, C++, Python, Javascript and Solidity
**Frameworks** : TensorFlow, OpenCV, PyTorch, SpaCy, React, Keras, Pandas, Flask
**Tools** : Tableau, Dataiku, LaTeX, Adobe Softwares, HuggingFace

## RESEARCH PUBLICATIONS

- **M. Saim**, R. Rizvi, M.Khan, "Analyzing the Performance of Machine Learning and Deep Learning Models in Detecting Cyberbullying Comments," *2023 International Conference on Recent Advances in Science and Engineering Technology (ICRASET), B G NAGARA, India, 2023, pp. 1-6.*

- **M. Saim** and R. M. Rizvi, "Digital Resilience: A Review of Cutting-Edge Approaches to Cyberbullying Detection in the Social Media Landscape," *1st DMIHER International Conference on Artificial Intelligence in Education and Industry 4.0 (IDICAIEI), Wardha, India, 2023, pp. 1-6.*

- M. Mamoon, **M. Saim**, I. Shah, and A. Samad, "A Decentralized BYOD Authentication System secure against ReEntrancy Attacks", *2023 14th International Conference on Computing Communication and Networking Technologies (ICCCNT), Delhi, India, 2023, pp. 1-7.*

- **M. Saim**, M. Mamoon, I. Shah, and A. Samad, "E-Voting via Upgradable Smart Contracts on Blockchain", *2022 International Conference on Futuristic Technologies (INCOFT), Belgaum, India, 2022, pp. 1-6.*

## EXPERIENCE

**Graduate Teaching Assistant**

*Machine Learning (Aug'24-Dec'24)*

- Assisted the students in various statistical machine learning topics along with doubt clearance and assignment grading on topics of regression, bayesian learning, gradient ascent training rules in ANN's and SMO implementation.

*Intelligent Data Analysis (Jan'25 - Present)*

- Aided the students in a variety of data analysis topics of data mining techniques including frequent pattern mining, exploratory data analysis, classification algorithms, etc.

**Summer Research Intern**

School of Artificial Intelligence and Data Science, IIT Jodhpur. *(May'24 - July'24)*

- Developing a comparative image projection of change in water surface area of lakes and non-reservoir water bodies in the state of Jharkhand, India.
- Utilizing the WRIS dataset through open street map and QGIS for layering and labelling water body area.

## PROJECTS

**Comment Toxicity Classification** (Research Project) Link
- Developed a toxic comment classification web application using natural language processing and deep learning techniques, including BERT, DistilBERT, and GRU models.

* Built a user interface with Gradio to allow text input and display toxicity predictions. The system classifies toxic online comments with over 90% accuracy.

**Real Time Object Detection Application for Visually Impaired** (*Senior Year Project*)
* Built an assistive application using the MobileNet SSD model with voice feedback and OCR features for blind users.
* Integrated haptic feedback through the mobile application in case of navigation and emergency.

**A Decentralised BYOD Authentication System**
* Developed a smart contract for an authentication system using credentials which are cryptographically secured using the keccak256 algorithm
* Developed a user interface for interaction with the smart contract.

## ACADEMIC ACHIEVEMENTS

○ Recipient of the *IEEE Lance Stafford Larson Student Award 2023* for paper presented at computer field conferences, recognized for excellence in technical content, writing skills, and presentation.

○ Awarded the Sir Syed Mentoring & Assistance Fellowship for the session 2023-24.

○ Secured third rank under Engineering and Technology project proposals in the **In-House Students' Research Convention** organized by the 'Innovation Council and University Incubation Centre' of the Aligarh Muslim University. In The News

## POSITIONS OF RESPONSIBILITY

○ **Chairperson (2023-24)**
*IEEE Computer Society, Zakir Husain College of Engineering and Technology*
* Organized three consistent workshops on Machine Learning and Artificial Intelligence attended by 60+ students of the university.
* Led the editorial team to the launch of the first annual newsletter of the society.
* Oversaw the collaboration of the society with other clubs for organizing various coding competitions.

○ **Co-Coordinator: Design & Animation (2021-22)**
*IEEE Student Branch, Zakir Husain College of Engineering and Technology*
* Assumed leadership in conceptualizing event promotions through innovative designs and strategic posting.

## CONFERENCES ATTENDED

○ International Conference on "Artificial Intelligence in Education and Industry 4.0" (IDICAIEI) 2023.

○ International Conference on Recent Advances in Science & Engineering Technology (ICRASET) 2023.

○ 14th International Conference on Computing Communication and Networking Technologies (ICC-CNT), IIT Delhi, India, 2023.

○ International Conference on Futuristic Technologies (INCOFT), Belgaum, India, 2022.