

ARJUMAND RASHID

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EDUCATION

Master of Computer Applications (CGPA - 9.33) Indira Gandhi Delhi Technical University for Women	2024-2026
Bachelor of Science in Computer Science (CGPA - 8.64) Delhi University	2021-2024
CBSE Board - Class XII (Percentage - 95%) Balwantray Mehta Vidya Bhawan, GK-II, New Delhi	2020-2021
CBSE Board - Class X (Percentage - 94%) Balwantray Mehta Vidya Bhawan, GK-II, New Delhi	2018-2019

PROJECTS

ToxNet: A Multi-layer Network approach to Toxicity Analysis ([Link](#)) Oct 2023 - Apr 2024
Graph Neural Network, PyTorch, Transformers, NLP

- Developed a model technique for hate speech detection in tweets using a multi-layer approach to **Graph Neural Networks**, which outperforms pre-existing models by **60%** in terms of F1 scores.
- Furthermore, constructed an augmentation technique to balance standard datasets using the pre-trained **GPT-2** model, thus increasing F1 scores by **15-20%**.
- The research paper has been accepted and presented in the Sixth International Conference on Soft Computing and its Engineering Applications, 2024.

Drowsy Driver Detection ([Link](#)) Jun 2024
CNN, Computer Vision, HAAR Cascade Classifier, OpenCV

- Combined the utilities of **HAAR Cascade Classifier** for image segmentation along with a deep learning **CNN** model for image classification to create a drowsy driver detection model.
- Utilized keras-tuner to optimize the CNN model and obtained accuracy score of **88%**.

Book Recommendation System using KNN ([Link](#)) May 2024
Sklearn, SciPy, Clustering

- Created a recommendation engine using **collaborative filtering** and user-behaviour patterns to suggest books to new users.
- Exploiting the feature of cosine similarity along with Nearest Neighbours clustering, increased the accuracy of suggestions by **30%**.
- Engineered geographical features of users to improve precision by a further **10%**.

RESEARCH PUBLICATIONS

Rashid, A., Kumar, S., Saxena, R., "ToxNet: A Multi-layer Network approach to Toxicity Analysis using Graph Neural Networks." Presented at the Sixth International Conference on Soft Computing and its Engineering Applications (2024). ([Read Paper](#))

TECHNICAL SKILLS

Languages	C, C++, Python
Developer tools	Git, GitHub, VSCode, Jupyter Notebook
ML Fundamentals	Deep Learning, Graph Neural Network, Natural Language Processing, Convolutional Neural Networks, Data Augmentation, Web Scraping, Data Wrangling
Libraries	Sklearn, PyTorch, Keras, Tensorflow, OpenCV, Pandas, Numpy, Seaborn, Matplotlib
Databases	MySQL
Relevant Coursework	Data Structures and Algorithms, OOPs, DBMS, Computer Networks, Operating System, AI/ML

POSITIONS OF RESPONSIBILITY

President Aug 2023 - Jan 2024
Cybernauts, Computer Science Departmental Society of Deshbandhu College, Delhi University.

Managed a team of **20+** members and organized various events such as a seminar on "Aligning AI with Human Values" as well as annual society events.