# Abrar Nazir

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## EDUCATION

**Jamia Millia Islamia, New Delhi, India**                    Jul 2021 - Jun 2025
Bachelors of Technology in Electronics and Communication Engineering                    GPA: 8.57/10.0

**Shemford Futuristic School Anantnag, J&K, India**                    2021
Higher Secondary School(XII)                    90.8%

**Kendriya Vidyalaya No. 2 AFS Srinagar, J&K, India**                    2019
High School(X)                    90.2%

## TECHNICAL SKILLS

**Languages :** C/C++, Python

**Web Technologies :** HTML/CSS, JavaScript, NodeJS, MongoDB, ReactJS

**ML/AI :** Tensorflow, Scrapy, PyTorch, Numpy, Pandas, Matplotlib, NLTK, Keras, CNN, Scikit-Learn, OpenCV, NLP, SVM, RandomForest, KNN, Gradient Descent, Decision Trees

**Miscellaneous :** Selenium, Beautiful Soup, MySQL, Git, Feature Scaling, Data Extraction, Data Visualization, Data Augmentation

## RELEVANT COURSEWORK

Deep Learning, Data Structures and Algorithms, Databases, Operating Systems, Computer Networks, Natural Language Processing, Computer Vision, Computer Architecture, Linear Algebra, Discrete Mathematics, Statistical Data Analysis, Cloud Computing

## EXPERIENCE

**Jamia Millia Islamia, New Delhi**

- Currently working on a Web Application for connecting Rescue Agencies to each other and predicting natural calamities beforehand.
- Implemented real-time location tracking using the Mapbox API, enabling agencies to update their locations in real-time.
- Integrated JWT (JSON Web Tokens) for secure user authentication and authorization.
- Predicting Natural Calamities(Floods, Droughts) by applying ML algorithms.

## PROJECTS

**Social App**

- Developed a comprehensive social networking platform with user-friendly features, including user registration and account creation, enabling users to personalize their profiles.
- Implemented a dynamic user experience by enabling users to post content, like and comment on posts, and even like individual comments. This interactive engagement fosters community building and encourages user participation.
- Facilitated social connectivity by incorporating friend requests and real-time chat functionality, allowing users to connect with friends and engage in private conversations within the platform.

**Facial Emotions Recognition**

- Designed and implemented a CV model based on Convolutional Neural Networks (CNNs) using TensorFlow and Keras capable of accurately recognizing facial expressions to determine the emotional state of individuals from images and video streams.
- Optimized model hyperparameters through grid search and random search to achieve superior accuracy and efficiency.

**Real time object Recognition and Tracking**

- Developed an OpenCV-based system for real-time object recognition and tracking in video streams.
- Enhanced computer vision capabilities for applications such as surveillance and autonomous navigation, showcasing expertise in OpenCV and practical computer vision solutions.

**Voice Assistant**

- Utilized the Natural Language Toolkit (NLTK) and spaCy for natural language understanding, enabling the assistant to parse and comprehend user queries.
- Integrated text-to-speech (TTS) functionality using libraries like gTTS (Google Text-to-Speech) and pyttsx3 for generating human-like responses.

**Twitter Sentiment Analysis**

- Developed a sentiment analysis model using Natural Language Processing (NLP) to analyze tweets and determine the sentiment (positive, negative, or neutral) expressed by users on Twitter.
- Performed data cleaning, text normalization, and tokenization to prepare the data for analysis.

**Credit Card Fraud Detection**

- Conducted thorough data preprocessing, including handling missing values, scaling features, and addressing class imbalance in the dataset.
- Implemented ensemble techniques, such as stacking and bagging, to combine the strengths of multiple models for improved fraud detection accuracy.

**IoT based Air Pollution Detection**

- Designed and built custom IoT devices using microcontrollers (e.g., Arduino, Raspberry Pi) to collect and transmit sensor data wirelessly.
- Employed data analytics frameworks (e.g., Python, Pandas) and cloud platforms (e.g., AWS IoT Core) to process, analyze, and visualize air quality data.

**ChatBot using NLP**

- Developed a chatbot using Python and NLP libraries for natural language understanding and generation.
- Achieved improved user engagement and efficiency by accurately recognizing intents and extracting entities, resulting in seamless, context-aware conversations.

**Fake News Detection**

- Created a machine learning model to accurately identify and classify fake news articles from credible sources.
- Improved information integrity and media literacy by providing a reliable tool for identifying misinformation.

## POSITIONS AND RESPONSIBILITIES

**PR Head, TRS JMI Chapter** 2023-Present

- Orchestrated successful PR campaigns for TRS events, boosting attendance and engagement through strategic media coverage and partnerships.
- Collaborated with industry partners, academic institutions, and potential sponsors to advance TRS's mission and initiatives.

**Core Member, TEDxJMI** 2023-Present

- Spearheaded the design and conceptualization of captivating visual themes and decorations that aligned with the TEDxJMI event's mission and message.
- Effectively managed the budget allocated for decorations, optimizing resources to achieve maximum impact while staying within budget constraints.

**Volunteer, E-Cell JMI** 2022-2023

- Assisted in coordinating various aspects of the startup event, including registration, guest management, and logistics.

**Volunteer, IEEE-JMI** 2022-2023

- Actively participated in IEEE-JMI's community service and outreach initiatives, aligning with IEEE's commitment to technological advancement for the benefit of society.