

Rakib Mustafa

Bahawalpur, Punjab | +92 3042588811
rakib.mustafa@gmail.com

Summary

Exploring the development of robust models for emotion detection in tweets, with a focus on Gaussian Kernel Fuzzy-Rough Nearest Neighbor combined with Ordered Weighted Aggregation (OWA) weighting approaches, as part of my master's thesis in Computer Systems Engineering.

Results-driven individual with expertise in Android development, DevOps, and Quality Assurance, contributing to the optimization of diverse software projects. Graduated with a Bachelor's degree in Computer Engineering from Ghulam Ishaq Khan Institute of Engineering Sciences and Technology (GIKI). Proficient in Python, Java, and C++, with extensive experience in data analysis and visualization using MATLAB. Demonstrates strong problem-solving skills, meticulous research acumen, and effective communication abilities. Seeking opportunities to leverage my technical expertise in cutting-edge projects within the realm of computer systems engineering.

Learn more about me

- Website: www.rakibmustafa.com
- LinkedIn: www.linkedin.com/in/rakibmustafa-raees
- Github: <https://github.com/RakibMustafaRaees>

Research-Masters

Completed a Master of Science in Computer Systems Engineering with a thesis titled *Emotion Detection in Tweets Using Gaussian Kernel Fuzzy-Rough Nearest Neighbor and Ordered Weighted Aggregation (OWA) Weighting Approaches*. This research developed a novel model integrating Gaussian kernel methods with fuzzy-rough set theory and OWA weighting to enhance emotion classification in tweets. By leveraging advanced preprocessing techniques, BERT embeddings, and hyperparameter optimization, the model achieved 85% accuracy, outperforming traditional methods like BERT+SVM. The study addresses challenges in handling non-linear relationships, ambiguous emotions, and noisy data, providing a robust framework for emotion detection in social media analysis.

Experience

IUB - The Islamia University Bahawalpur Department of AI and IT | Punjab, Bahawalpur
Part-time Lecturer | 10/2023 - Present

My teaching tenure at IUB spans more than 2 years, during which I contributed to the academic programs of the Department of Artificial Intelligence and the Department of Information Technology.

Devticks | Punjab, Bahawalpur
Software Engineer | 01/2025

- **Tech Stack** - Spring, Spring Boot, Java, Google Gice, Jersey, REST API

Tkxel | Punjab, Bahawalpur
Software Engineer | 07/2024 - 08/2024

Developer, DevOps, Android Development (Kotlin, Composable), Q/A

NCBAE-National College of Business Administration and Economics | Punjab, Bahawalpur
Part-time Lecturer | 03/2024 - 07/2024

Experienced educator specializing in Machine Learning with a strong background in delivering comprehensive lectures and guiding practical projects. Skilled in curriculum development, fostering student engagement, and applying advanced ML techniques. Proven ability to enhance learning outcomes through innovative teaching methods and hands-on experience.

NCBAE-National College of Business Administration and Economics | Punjab, Bahawalpur
Assistant Controller of Examination | 07/2022 - 07/2024

In this role, I planned, scheduled, and organized exams, ensuring compliance with institutional policies. I managed records, oversaw invigilation, maintained confidentiality, handled transcript issuance, and liaised with departments and authorities.

Mogul Press | Punjab, Bahawalpur
Marketing Lead | 01/2024 - 03/2024

As a Marketing Lead, spearhead strategic marketing initiatives to drive brand awareness and business growth. Develop and execute comprehensive marketing plans, leveraging digital, social media, and traditional channels. Collaborate with cross-functional teams to align marketing strategies with business objectives, ensuring consistent messaging and impactful campaigns.

Publications

Sidra Razaq, Rakib Mustafa, Ghulam Mustafa, A hybrid family of non-uniform ternary schemes with mixed symmetry for approximating shapes, Journal of Applied Mathematics and Computing, 21 December 2024. <https://doi.org/10.1007/s12190-024-02342-7>

Samsul Ariffin Abdul Karim , Rakib Mustafa , Humaira Mustanira Tariq, Ghulam Mustafa , Rabia Hameed and Sidra Razaq, The Generalized Classes of Linear Symmetric Subdivision Schemes Free from Gibbs Oscillations and Artifacts in the Fitting of Data, Symmetry 2023, 15, 1620. <https://doi.org/10.3390/sym15091620>

Rakib Mustafa, Muhammad Tahseen Iqbal, Ghulam Mustafa and Samsul Ariffin Abdul Karim, Advancing curve and surface images modeling with two-parameters polynomial-based quaternary subdivision schemes, International Conferences on Advances in Machine Intelligence and Cybersecurity Technologies (AMICT2023), ITM Web of Conferences 63, 01013 (2024) <https://doi.org/10.1051/itmconf/20246301013>

Educational Certificates

Supervised Machine Learning: Regression and Classification

Education

The Islamia University of Bahawalpur | Bahawalpur, Punjab
Master of Science in Computer System Engineering (18 years) | 01/2025

Emotion Detection in Tweets Using Gaussian Kernel Fuzzy Rough Nearest Neighbour with OWA Weighting Approaches

Ghulam Ishaq Khan Institute GIKI | Topi Sawabi, KPK
Bachelors in Computer Engineering (16 years) | 06/2022

Sadiq Public School Bahawalpur | Bahawalpur, Punjab
A levels | 03/2018

Academic Excellence Award (Sadiq Public School Certificate of Merit) Secured Scholarship for A levels

Sadiq Public School Bahawalpur | Bahawalpur, Punjab
O Levels | 01/2016

Academic Excellence Award (Sadiq Public School Certificate of Merit) Secured Scholarship for O levels

Projects

Android App (Image Compressor - COMPRESSIFY)

Image compressor was developed using Kotlin and Jetpack Compose. It features an intuitive UI with options to select images from the gallery or capture new ones using the camera. The app includes functionality for compressing images, displaying the original and compressed sizes, and saving the compressed images to the gallery. Additionally, it manages runtime permissions and provides a smooth user experience with a progress indicator during the compression process.

Visit my Github for more info on this project: https://github.com/RakibMustafaRaees/Image_Compressor

Android App (WeatherApp - SKY WATCH)

This project's purpose was to use different Android development concepts to make a working real-time weather application that displays weather of any city the user inputs in the search bar. Main technologies used are Android Studio as IDE, Kotlin language, Composable concept, Retrofit to handle API Responses and weatherapi.com.

Visit my Github for more info on this project:

https://github.com/RakibMustafaRaees/WeatherApp_Android_Kotlin_Composable_Retrofit_Weather.API

Internships and Other Certificates

- Sky Ray Ventures Internship Title Marketing Specialist "Skilled in Instagram marketing strategies: adept at crafting engaging content, targeting specific audiences, and driving brand awareness and engagement. Proven ability to leverage Instagram's dynamic platform to achieve marketing objectives.
- Regional Plan 9 Initiation of Punjab Information Technology Board where we aimed at encouraging tech entrepreneurship to create an impact in the region of Bahawalpur by helping startups build sustainable business.
- Blogger Brackets (Software House) I learned Wordpress for 8 weeks and worked on multiple ongoing projects, that included tasks such as creating woo-commerce websites, landing pages and interactive chat assistants.
- Remoty-SEO (Startup Company) I worked on with websites created using Wordpress and learned SEO writing in their marketing projects.
- PAK Detectors (Product-based Company) Here I worked with both hardware and software we wrote different assembly level codes that helped us detect different earth metals such as gold, copper and silver.

Skills

Image Processing, Machine Learning, WordPress, Android Developer, Java, Python, C++, SEO Writing, Kotlin, C#, DevOps, Q/A, Deep Learning

Final Year Project-Bachelors

The project was associated with creating a fully functional mobile application which provided an Interaction Portal that was able to provide a platform for students to interact with alumni and teachers for better understanding of their degree program and gain better opportunities in professional market. Additionally Integrated Chatbot, tracking system and Information was added to application for visitors at our University.

Tech Stack and Technologies used during FYP:

- Android Studio - JAVA
- Firebase Database
- Deep Learning - LSTM (Encoder-Decoder Model)
- TF lite conversion
- Google Maps

Academic Projects-Bachelors

Computer Organization and Architecture: Design for a unique processor was proposed that included all basic functionalities of a processor.

Data Base project: We created airline management system that manages flight schedules, tickets and calculates the shortest paths for different flights.

WordPress Web Designer

As a seasoned WordPress Web Designer with a passion for crafting visually stunning and highly functional websites, I bring a wealth of experience in transforming creative concepts into digital realities. With a keen eye for design, an in-depth knowledge of WordPress, and a commitment to staying at the forefront of industry trends. My expertise encompasses responsive design, SEO optimization, and an unwavering commitment to user-centric experiences. I am also well-versed in many WordPress plugins, some of which include Elementor Pro, WP Forms, Astra, Contact Form 7, Envato Elements and many more. To learn more about me visit my website at "www.rakibmustafa.com".

Languages

English, Urdu