Ramsha Anwar

New Mexico, US | E-Mail | Ramsha's Portfolio | LinkedIn | GitHub

Research Goal

My research aims at exploring how growth in technology can be made secure and privacy-conscious by contributing towards the development and analysis of computer systems that are usable and do not feed into the threat landscape.

Education

University of New Mexico, Doctor of Philoshophy — August 2025 - Present

Jamia Millia Islamia, BTech in Computer Engineering — November 2021 - May 2025

- CPI: 9.15/10.0 (First Division with Honors)
- **Coursework:** Computer Networks, Computer Architecture, Computational Theory, Data Mining

Experience

Undergraduate Research Assistant, BeyondDefense Lab — December 2023 - Present

- Leading research project to investigate the security and privacy concerns of mobile healthcare applications.
- Performed comprehensive data collection through dorking on multiple search engines (Google Search, DuckDuckGo) and designed scrappers and crawlers.
- Qualitatively analyzed more than 200 mHealth application descriptions using initial/axial coding.
- Refined the sampling algorithm and saturation criteria over a pilot study. Validating the coding using inter-coder reliability.

Software Engineer Intern, Google – Bengaluru, India — June 2024 – Aug 2024

- Designed, implemented and tested a feature that integrates two Google Cloud Services.
- Implemented message-passing through layers and synchronization of tasks for successful integration of services.
- Worked with cross-functional teams and product managers to design the user experience.
- Created a method for polling of completed tasks.
- Tech Used: Java, Angular Framework, Golang, GraphQl

Software Engineer Intern, NSE TalentSprint – Hyderabad, India — June 2023 – July 2023

- Used Orange data-mining GUI to create low-code/no-code solutions for machine learning problems and deployed the trained models on the web.
- Created detailed video documentation for each solution.
- Created a new GUI extension as an open-source contribution.
- Tech Used: Streamlit, Orange

Publications

Deep Learning Based Classification of Underwater Acoustic Signals — November 2023

Faiyaz Ahmad, Mohd Zeeshan Ansari, ***Ramsha Anwar***, Bushra Shahzad

10.1016/j.procs.2024.04.106

A magnified view of the mHealth landscape: An investigation of the privacy of mobile healthcare applications — *to be determined*

Ramsha Anwar, Afsah Anwar Sazzadur Rahaman

We are preparing it for peer-review

Achievements

- **Women Engineers Scholar:** Qualified a 4-tier selection round to get a 100% cash scholarship, from Google, for the 2-year program conducted by TalentSprint.
- **Scholar:** Received scholarship by Jamia Millia Islamia for being amongst the top 5 highest performing students in my branch for the 2022 academic year.

Projects

Titanic Survival Prediction

- Trained a Random Forest model using Orange to give an 80% accuracy on the Titanic dataset.
- Designed and implemented an input interface in Streamlit to allow users to provide input to the trained Orange model for generating predictions.
- Integrated the SHAP (SHapley Additive exPlanations) library into the Streamlit app to analyze and interpret the predictions generated by the mode
- Tools Used: Orange (GUI and data mining library), Streamlit, SkLearn, SHAP

Paisa Planner (Budgeting App)

- Built an app to manage finances for college students through an interface for budget planning and investment features including stock prediction, and integrated the stock predictor built using an LSTM architecture.
- Tools Used: Dart, Python, Flutter, Flask, Matplotlib, SkLearn

Self-Organised Traffic Control System

- Implemented an algorithm to organise traffic in high-density cities using an open-source traffic simulator, SUMO and implemented the algorithm using the TraCi library.
- Tools Used: XML, TraCI(Python Library) & SUMO

Technologies

Languages: Python, C++/C, Java, Golang, JavaScript, TypeScript

Technologies: MOBSF, Android Studio, Orange, Sklearn, Angular Framework