Project Title

Identifying Patterns in Open QA Model Responses

Project Description:

This project focuses on analyzing the responses of open QA models, where each response has a category and is labeled as either pass or fail. The objective is to detect patterns in responses that contribute to success or failure. By leveraging NLP techniques and data analysis, the project aims to enhance model interpretability. The study will involve response categorization and pattern recognition. To achieve this, a log analyzer system will be developed to systematically track and analyze model responses. The system will detect response patterns but allow administrators to review and update labels dynamically based on identified patterns.

Project Type: Research or Engineering

Internship Batch:
- **Batch 1:** May 11 to July 10, suitable for Education City students, i.e., CMUQ, TAMUQ and HBKU students

Duties/Activities:

- Perform exploratory data analysis (EDA) on QA model responses.
- Develop and implement algorithms to identify patterns in failed and passed responses.
- Evaluate statistical and machine learning approaches for pattern detection.
- Collaborate with the team to refine evaluation criteria and improve model interpretability.

Required Skills: React, Phyton

Preferred Intern Academic Level: Undergraduate (Senior) or Graduate students in Computer Science, Cybersecurity, Data Science, or a related field.

Learning Opportunities:

- Gain experience in analyzing real-world AI model outputs.
- Work with NLP techniques to interpret QA model behavior.
- Develop hands-on skills in Python-based data processing and machine learning.
- Improve skills in React development, API integration, and Python-based security analysis.

Expected Team Size: A team of 2 members

Mentors

Name: Dr. Fatih Deniz   Email: fdeniz@hbku.edu.qa