Project Title:

Social Media Disaster image processing, retrieval, and visualization

Project Description: This project aims at development of a web application to retrieve and visualize Social Media image streams during a disaster event. Images will be processed by the machine learning models at the backend in real time.

The application will be capable of providing different search options for image retrieval. 1) Users will be able to perform filtering based on available filters (disaster type, severity level, particular objects in the image etc.). 2) Users will be able to upload the image, which will be processed by all the deep learning models at the backend and display the results. Moreover, the application will provide an option to show a live stream of images.

Project Type: Engineering

Duties/Activities:

- Design a dashboard for image retrieval and processing similar to this [Page].
- The system:
  - Should be able to handle single and batch processing (csv with image links)
  - Should be able to apply single or multiple filters
  - Should be able to cache the search queries for faster results.
  - should connect to backend via Rest APIs
- Improve the current UI/UX for better visualizations.

Required Skills:

- Web application development in Javascript, PHP, html, CSS
- Front-end development in Vue JS or other Javascript frameworks
- Restful API (Django, Flask etc.) for backend integration
- Bootstrap
- ElasticSearch

Preferred Intern Academic Level: Any, as long as the applicant has the required skills.

Learning Opportunities:

- Real world web development experience
- Experience with state of the art machine learning tools
- Experience with database management system

Bonus Task:

- Based on the query, return the closest match image if there is no exact match.
- Visualization of labels on the image

Expected Team Size: 2
<table>
<thead>
<tr>
<th>Mentor</th>
<th>Email</th>
</tr>
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<tbody>
<tr>
<td>Rizwan Sadiq</td>
<td><a href="mailto:rsadiq@hbku.edu.qa">rsadiq@hbku.edu.qa</a></td>
</tr>
<tr>
<td>Zainab Akhtar</td>
<td><a href="mailto:zakhtar@hbku.edu.qa">zakhtar@hbku.edu.qa</a></td>
</tr>
<tr>
<td>Muhammad Imran</td>
<td><a href="mailto:mimran@hbku.edu.qa">mimran@hbku.edu.qa</a></td>
</tr>
<tr>
<td>Ferda Ofli</td>
<td><a href="mailto:fofli@hbku.edu.qa">fofli@hbku.edu.qa</a></td>
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