



**DIGITAL
EMPOWERMENT
PAKISTAN**
— FOUNDATION

Data Science

www.digitalempowermentpakistan.com



About Us

At Digital Empowerment, we envision a future where youth are equipped with the skills, knowledge, and mindset needed to thrive in a rapidly evolving world. Our mission is to bridge the digital divide, foster leadership development, and enhance academic growth, empowering young minds to realize their full potential.

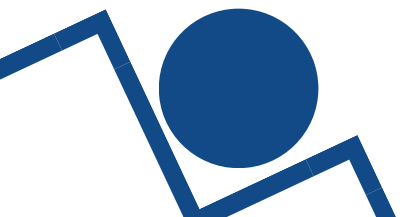
To achieve this, we offer comprehensive virtual internships across various domains, providing students with invaluable hands-on experience and practical skills essential for success. Furthermore, we are committed to assisting exceptional students in securing positions at prestigious companies, helping to launch their careers and build a brighter future for themselves and future generations.



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Instructions

1. Enhance your online presence by updating your LinkedIn profile.
2. For successful completion of the internship, complete one level (Level 1, 2, or 3) of the Web Development internship at your own pace.
3. Keep your tasks organized in a separate GitHub repository named "DEP" and share the link in the task submission form.
4. Utilize online resources like Google Search, tutorials, and videos to assist you in completing the tasks.





Task 4

Anomaly Detection in Network Traffic:

- **Objective:** Detect anomalies in network traffic that may indicate potential security breaches.
- **Description:** Analyze network traffic data to identify patterns and detect anomalies that could signify cyber threats or unusual activities.
- **Key Steps:**
 - o Data collection and preprocessing
 - o Feature extraction (e.g., packet size, time intervals)
 - o Anomaly detection algorithms (e.g., Isolation Forest, Autoencoders)
 - o Evaluation and validation of detected anomalies