Machine Learning Project

Project title: A Systematic ML Framework Museum Artifacts Categorization based on artifacts era, material,…etc

Project Details:

Archaeology involves studying the human past through artifacts like stone, bone, pottery, etc. Practitioners classify artifacts based on factors like date, cultural attribution, and socio-economic significance. To enhance this process, computer applications, particularly machine learning models, have been introduced for automated archaeological classifications (Derech et al., 2021; Tal, 2014). Our project presents a comprehensive approach for classification of museum artifacts, focusing on Egyptian monuments. The methodology involves collecting and combining both visual and tabular data that focuses on Egyptian artifacts. Progress on this challenge improves the tools of a museum curator while improving content-based exploration by online visitors of the museum collection.

Datasets:

Keyword Search (catalogaccess.com)

The Global Egyptian Museum

National Museum OF Egyptian Civilization (kaggle.com)

British Museum Egyptian Objects 700 330 BCE (kaggle.com)

Supporting papers:

The Rijksmuseum Challenge | Proceedings of International Conference on Multimedia Retrieval (acm.org)

The Rijksmuseum Challenge: Museum-Centered Visual ... mensink.nu https://www.mensink.nu › pubs

A deep-learning model for predictive archaeology and archaeological community detection | Humanities and Social Sciences Communications (nature.com)

aviresler/antique-gen: AI system for finding similarities in antique images (github.com)

Computer vision and machine learning for archaeology (uni-tuebingen.de)

Machine learning for stone artifact identification: Distinguishing worked stone artifacts from natural clasts using deep neural networks | PLOS ONE

Machine Learning for Cultural Heritage: A Survey - ScienceDirect