Rao Hamza Ali

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SKILLS

Tools: TensorFlow, NLTK, spaCy, AWS, GCP, Git, MongoDB, Neo4j
Languages: Python, R, SQL, JavaScript

EXPERIENCE

International Space Station Archaeology Project   **Jan 2020 - Present**
Graduate Research Assistant   Orange, CA
- Explored computer vision techniques for identification of astronauts in photos taken inside the ISS.
- Implemented deep neural networks to classify modules photographed in ISS images.
- Wrote research paper on astronaut face identification using Amazon's Machine Learning API (under review).
- Provided useful insight through statistical analyses and to space archaeologists regarding social interactions on the space station.

Chapman University   **Sept 2018 - Present**
Graduate Research Assistant   Orange, CA
- Authored 4 peer-reviewed research papers (+4 under review) on machine learning applications in software, images, art, and music.
- Provided expertise in machine learning and NLP applications to industry professionals for practical usage.
- Trained undergraduate students on using TensorFlow and NLTK and guided them through data gathering and modeling processes.
- Applied word-embedding models to paintings and music to generate fingerprints for artists.
- Designed scripts in Python to automate data gathering processes from Twitter, Google Maps, and news websites.

Chapman University   **Sept 2019 - Present**
Graduate Teaching Assistant   Orange, CA
- Taught Database Management course and introduced students to relational databases, SQL, ETL process, NoSQL databases, and GCP instances.
- Taught upper-level Data Science course and instructed students regression models, optimization and clustering algorithms, and data preparation and pre-processing techniques.

Afiniti   **Jun 2011 – Jun 2014**
Analyst Trainee   Karachi, Pakistan
- Applied regression and statistical models to boost call center agent performance.
- Designed integration tools to pull data from multiple sources using SQL scripts and big data installations.
- Handled Sprint and Rogers accounts and played key role in improving their annual profits through optimized models.

EDUCATION

Chapman University   Orange, CA
Ph.D. Computational and Data Sciences   **May 2022**
- Research focus: AI techniques in the interchange of art and music
- Relevant coursework: Data Mining, Machine Learning, Natural Language Processing, Signal Processing

BS. Computer Science   **May 2018**
- magna cum laude, 3.89 GPA
- Member of Chapman Robotics and Schmid College Leadership Council

INTERESTS

Generative Art; Origami; Soccer