Ansh Poonia

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Education

Bachelor of Technology in Computer Science and Engineering

GPA - 9.3/10.0 2020 - 2024

BML Munjal University | Gurugram, India

- Achievements: Received Academic Excellence Award | Awarded 100% Scholarship
- Leadership Position: President of Science And Technology Appreciation Club
- Courses: Design and Analysis of Algorithms | Social Network Analysis | Digital Image Processing | Deep Learning | Natural Language Processing | Probability and Statistics | Computer Networking

Experience

Kantar Analytics Practice, Data Science Intern | Chennai, India

September 2024 - Present

- Optimized the data pipeline of prediction models.
- Developed forecasting models for gaining insights of the future trends.

WaChatty, Web Development Intern | Gurugram, India

June 2023 - July 2023

- Developed and engineered a web-based application using JointJS to facilitate the creation of chatbots through an intuitive flowchart-based interface.
- Implemented a Flask-based microservice architecture utilizing containerization with Docker for efficient and scalable management of chat requests.

Kantar, Data Science Intern | Pune, India

June 2022 - August 2022

- Devised innovative approaches for extracting tabular data from .pdf files using regex, and pattern recognition.
- Assisted MindTech's team in developing statistical models to assess user base for clients.
- Automated solutions for the generation of spreadsheet documents.
- Optimized and redesigned existing source code files and documentation.

Skills

Programming Python, Java, JavaScript, SQL, R, Octave

Libraries/Framework TensorFlow, PyTorch, React.js, React Native, Node.js, Scikit-learn, Pandas, NetworkX

Projects

Automatic Panorama creation from Video

Link

Python | OpenCV | TensorFlow

- Created an efficient tool utilizing a pretrained CNN to measure the similarity between two consecutive frames, surpassing the computational speed of the SSIM approach by a factor of 20.
- Engineered a program to autonomously generate panoramic imagery from video by employing the technique outlined in "Automatic Panoramic Image Stitching using Invariant Features."

Facebook-Ego Recommender System

Link

Python | NetworkX | PyTorch | DGL

- Developed a recommender system for suggesting new connections to newly on boarded users on a social platform.
- Analysed the Facebook Ego dataset compiled by SNAP Stanford.

The Social Network

Link

JavaScript | Node.js | PostgreSQL | MongoDB

• Designed and developed a dynamic social networking platform with real-time communication functionalities, including synchronous messaging, as well as advanced features facilitating the management and maintenance of online connections.

Research Work

Designing of High Entropy Alloys with High Hardness-A Metaheuristic Approach

April 2024

Scientific Reports

- Designed machine learning models for property prediction of High Entropy Alloys (HEAs), surpassing the current state of the art.
- Developed an algorithm based on Differential Evolution aimed at enhancing the composition of alloys to attain higher hardness.

Predicting Glass-forming-ability of bulk metallic glasses using Recurrent-Neural-network

February 2024

Materials Letters

• Worked on the development of machine learning algorithm for feature extraction using recurrent neural networks, and further predicting GFA of BMGs through gradient boosting framework.

Design of high bulk moduli high entropy alloys using machine learning

November 2023

Scientific Reports

- Participated in the comprehensive revision and refinement of the manuscript.
- Optimized data pre-processing methodologies and hyper-parameters, resulting in the attainment of an exceptionally high R² score of 0.98 for model performance evaluation.