ARUP SANKAR ROY

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EDUCATION

UNIVERSITY INSTITUTE OF TECHNOLOGY

Bachelor of Engineering in Computer Science | Current cgpa:7.2

Burdwan, West Bengal, India Aug. 2022 – Jul 2025

JALPAIGURI POLYTECHNIC INSTITUTE

Diploma in Civil Engineering | ogpa:8.1

Jalpaiguri, West Bengal, India Sep. 2019 - Aug. 2022

WORK EXPERIENCE

DATA SCIENCE INTERN

iNeuron Intelligence Pvt Ltd, India

Jan 2024 – Ongoing Remote

- Implemented UNet for Knee MRI segmentation, improving disease spot identification accuracy.
- Leveraged PyTorch and Faster RCNN methodologies, amplifying detection capabilities and playing a key role in the evolution of diagnostic tools in medical imaging.

DATA SCIENCE INTERN

Aug 2023 – Aug 2023 Remote

CodersCave Virtual Internship Program - CVIP, India

- Conducted EDA on Global Terrorism Database using Numpy, Pandas, Matplotlib, Seaborn, and Plotly.Utilized Choropleth maps, Bar Plots, Area Plots, Pie Charts, and Heat Maps for insightful visualizations,unveiling security implications.
- Performed Email Spam Detection utilizing NLTK library. Employed text preprocessing, feature
 extraction, and machine learning techniques. Achieved accurate classification, highlighting potential spam
 emails.

FEATURED PROJECTS

THE ENTITY: A REALTIME 3 PHASE ILLIGAL ITEMS MONITORING SYSTEM

Feb 2024 - Ongoing

Python|PyTorch|OpenCV|Yolov8|Flask|HTML|CSS|JS

- First phase achieves real-time detection of weapons,gambling elements,smoking,military vehicles.. etc from video, eliminates post video processing delays.
- Phase two introduces detections, segmentations, heatmap presentation from image of illigal items, for a
 deeper understanding, enhancing the analysis of image with an user friendly UI.
- The third phase ensures a seamless and efficient user experience for webcam-based detection.

 GithubLink

JUNKY: AI POWERED JUNK DETECTION SYSTEM

Nov 2023- Dec 2023

Python|Yolov5|Flask|HTML|CSS|JS

- Manually annotated dataset for trash detection.
- Trained the custom dataset on YOLOv5 and observed astounding accuracy and precision.
- Prepared flask web application to seamlessly deploy and demonstrate the functionality of the trained model. GithubLink

HOUSEHOLD ENERGY CONSUMPTION PREDICTOR

Aug 2023- Sep 2023

Python|Scikit-Learn|Pandas|Flask|HTML|CSS|JS

- Fetched data from kaggle, processed and performed EDA .Applying Huber Regressor and Created a model with accuracy 99%, saved in pickle format.
- Prepared flask application to run the model and Generated an user friendly UI. GithubLink

SKILLS

Data Analytics and Visualization Libraries: Numpy, Pandas, Matplotlib, Plotly, Streamlit, Seaborn, Scipy.

Machine Learning Libraries: Scikit-Learn, PyTorch, OpenCV.

Programming Languages: Python, Java, C, Flask.

System Experience: Linux, Windows.

Softwares: Microsoft Excel, Postman API Testing Platform.

ADDITIONAL

Lead the team (Tensors) secured rank 5 out of 50+ teams in 'CodeBird HackWitz 2k22'.

Became the Tech Lead of ML/AI/DS in our Coding Club Code Bird UIT, CSE.

Participated internal hackathon in Smart India Hackathon.

Profile Links: Github | GeeksForGeeks | LinkedIn