Subhadeep Sengupta

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EDUCATION

National Institute of Technology Karnataka, Surathkal

Bachelor of Technology Electronics and Communication Engineering Cumulative GPA: 7.49/10

Delhi Private School, Sharjah

AISSCE (12th grade) 93.2%

INTERNSHIP EXPERIENCE

Summer Research Intern - NITK, Surathkal (Team of 4 undergraduates and a guide Ph.D.) May 2021 – July 2021

- Using Machine Learning to detect cardiovascular disease from Electrocardiogram reports.
- Published in the International Journal of Information Technology (Springer) (May 2022)

Winter Intern - NITK, Surathkal (Team of 2 undergraduates and a guide Ph.D.) Dec 2020 - Jan 2021

- Tested and debugged a state-of-the-art method for Change Detection in Hyperspectral Imaging.
- Achieved a 91% accuracy on limited computing power as compared to the best accuracy of 94%.
- Attempted to modify the Neural Network used in the proposed method.

PROJECTS

CONSUMER LOAN DEFAULT RISK PREDICTION

- Used Imbalanced-Learn package for handling imbalanced data.
- Achieved a ROC-AUC score of 0.85 on unseen test data.

FACIAL EXPRESSION RECOGNITION

• Recognizing faces in an image and predicting age, gender and emotion using TensorFlow.

BRAIN TUMOR CLASSIFICATION OF MRI IMAGES

- Used a pre-trained model (MobileNetV2) to obtain about 75% accuracy.
- Built a novel approach using a lightweight model to get about 73.8% accuracy.

ROCK PAPER SCISSORS USING OPENCV

- Used OpenCV and a convexity defect algorithm.
- Used Streamlit for the display interface.

Surathkal, Karnataka Mav 2022

> Sharjah, UAE May 2018

April 2021 - April 2021

Jan 2021 - Mar 2021

Feb 2021 - May 2021

April 2021 - April 2021

WHERE'S WALDO PUZZLE SOLVER

• Used OpenCV algorithms like template matching and feature matching to detect Waldo's face in an image containing multiple faces.

ADDITIONAL SKILLS

Technical Skills: C++, Python, Pandas, NumPy, SciPy, Matplotlib, Seaborn, Sci-kit Learn, OpenCV, Computer Vision, TensorFlow, Streamlit, Beautiful Soup, Requests, SQL, MATLAB, Git

Languages: Fluent in English; Native Proficiency in Bengali; Working Proficiency in Hindi

Certifications & Training: Neural Networks and Deep Learning (Coursera), Exploratory Data Analysis with NumPy and Pandas (Coursera Guided Project)