GYANESH AMISH SHAH

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EDUCATION

Master of Engineering in Electronics and Computer Engineering   Expected Grad. Date: Dec 2023
University of California, Irvine – Irvine, CA
Relevant Coursework: *Machine Learning, Digital Image Processing, Leadership & Entrepreneurship*

Bachelor of Engineering in Electronics & Telecommunications with Distinction   Grad. Date: June 2022
Thadomal Shahani Engineering College, Mumbai, India
Relevant Coursework: *OOP using JAVA, Database Management System, Big Data Analytics*

PROFESSIONAL EXPERIENCE

In Vivo Functional Onco-Imaging (IVFOI) Facility, UCI | *Lab Member*   Jul. 2023 – Present
- Collaborating on a groundbreaking project, harnessing photo magnetic imaging for the precise detection of cancerous tumors.
- Performing functions of a Data Scientist, generating unbiased data sets for the AI model, ensuring reliable and valid results and optimizing the model's learning and predictive capabilities.
- Applying MATLAB for comprehensive data analysis and visualization, enhancing the understanding of complex patterns and trends in the medical images.
- Contributing to the development of AI-driven medical imaging models, amassing expertise at the crossroads of technology and healthcare.

War Against Covid, India | *Co-Founder*   Apr. 2021 – Jun. 2021
- Developed a robust and intuitive web application, streamlining access to vital COVID-19 resources during the height of the pandemic.
- Directed a team of nearly 100 volunteers to manage data collection, verification, and user support.
- Ensured rigorous quality control and fact-checking, underpinning the reliability of shared information.

ACADEMIC PROJECTS

IoT-based Floral Farm Monitoring System using Advantech Hardware
- Collaborated with a cross-functional team in developing an innovative IoT-based Floral Farm Monitoring System.
- Engineered an autonomous robot with Raspberry Pi, PiCam, and ultrasonic sensors, effectively navigating and monitoring a sunflower farm.
- Applied Python expertise to create navigation algorithms, harnessing OpenCV for precise path tracking across uneven terrains.
- Leveraged the Google Drive API to seamlessly upload captured images to cloud storage, facilitating comprehensive analysis.

Stock Market Prediction using LSTM and Social Media
- Devised an LSTM-based stock market predictor that achieved an impressive 81.3% accuracy, leveraging Social Media data integration.
- Conducted rigorous quantitative analysis on stock data from the Yahoo Finance API, augmenting predictive model capabilities.
- Employed the Tweepy library for data extraction from Twitter, and executed sentiment analysis using NLTK toolkit for NLP insights.
- Innovated a user-centric front-end interface, enabling intuitive stock searches and interactive visualization of predictions.

PUBLICATIONS

- J. S. Saraswatula, R. R. Pathare, M. Algariwi, Y. Zang, **G. Shah,** F. Nouizi, G. Gulsen, "A Region Based Convolutional Neural Network Algorithm for Preconditioning of Photo Magnetic Imaging Reconstruction Algorithm" under review, *Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization (2023)*

SKILLS

- Programming Languages: Python, C++, Java, SQL, VHDL, HTML, CSS, Javascript, Bash
- Engineering Software: MATLAB, AutoCAD, TinkerCAD, LabVIEW, Diptrace, edsim51
- Tools and Libraries: Git, OpenCV, Scikit-learn, NLTK, Pandas, NumPy, Keras
- Competency Skills: Analytical and Strategic thinking, Problem-Solving, Leadership, Self-development, Innovation, Attention to detail