

SHREYA SINHA

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ACADEMIC QUALIFICATIONS

- MS in Computer Engineering at Stony Brook University, United States
- B. Tech in Electrical and Electronics Engineering at VIT University, India
 - Grade Point Average (GPA) - 8.12/10

August 2021 - December 2022

May 2016 - June 2020

SKILLS

Coding Languages: Python, MATLAB, C/C++, Java, MySQL.

Simulation Tools: Tableau, Core Composer, Maxwell, PS-CAD, LT Spice, Mathematica, Origin, LaTeX.

ML Toolkits: Numpy, Panda, TensorFlow, Keras, SciPy, Scikit-learn, Statistics.

WORK EXPERIENCE

Machine Learning Engineer at Radarr, Bangalore, India

August 2020 - August 2021

- Worked on various generic sentiment models and aspect-based sentiment models, which convert unstructured real time data into structured real time data and train the model to identify the sentiment of a post/statement.
- Used the FastAI library for pre-training and fine tuning of the models which are capable of calculating the confidence score for all the Asian languages.
- Worked on XLM RoBERTa transformers to build a multilingual industry specific sentiment model, which provides better sentiment classification for each client.
- Used Google's MuRIL model to analyse the sentiments for posts in Indian languages and transliterated posts present on social media and predicting the sentiment associated with it.
- Built Logo Detection and Object detection models for clients to flag the fake or duplicate document images present on the social media using ImageAI.

Applied Scientist Intern at PricewaterhouseCoopers (PwC), Bangalore, India

May 2019 - June 2019

- Built a Recommendation Tool for retail products using item-item based Collaborative Filtering technique, which recommends new products to the user based on their previous history.
- Designed a tool for customer's Sentiment Analysis using NLP techniques and used that to identify the customers as promoters, passives, and detractors.
- Created a Slackbot for the client's official slack workspace using NLP and Slack API which responds to the user's query on the basis of real time data used for training the bot.

Research Assistant at Indian Institute of Technology, Patna, India

May 2018 - June 2018

- Designed a machine learning model which measures the accuracy of different human activities performed on a daily basis such as walking, sleeping, jumping, running, sitting, and standing.
- Used physiological sensors to assemble time series data which was used to extract various features at different window sizes and obtained a training matrix.
- Used classifiers such as K nearest neighbor and Support Vector Machine with various values of K and different distances. Achieved an accuracy of 99.6%.

PUBLICATIONS

- Sinha, S., Chandrashekharan, U., N, Kanimozhi., Saravanan, S., Diarra, B. [2021]. Computer Aided Diagnostic Methods for Detecting Heart Diseases Using ECG. Smart Technologies in Electric Vehicle and Power Grid, Chennai, India.
- Verma, H., Paul, D., Reddy, S., Bathula, Sinha, S., Kumar, S. [2018]. Human Activity Recognition with Wearable Biomedical Sensors in Cyber Physical Systems, IEEE-1570490599. IEEE INDICON, Coimbatore, India.

ACADEMIC PROJECTS

Computer Aided Diagnosis Methods for Detecting Heart Diseases Using ECG

January 2019 - June 2020

Research Advisor: Dr. U. Chandrashekharan, Associate Professor, VIT University.

- This project aimed to identify the condition of the human heart using supervised and unsupervised learning

techniques.

- Characteristic features like age, fasting sugar level, blood pressure, ST depression, maximum heart rate achieved, etc. were considered for analysis.
- Different classifiers like K nearest neighbor, Support Vector Machine, Random Forest, K Mean Clustering and Linear Regression were explored for identification of unknown samples and maximum accuracy of 84% was achieved.

Obstacle Detection Robot

August 2017 - December 2017

- Designed a robot operated by a DC motor that detects obstacles and correspondingly changes its direction to avoid collisions with the help of ultrasonic range sensors.
- Fused an algorithm (Arduino code) into the bot that manipulates the desired distance for obstacle detection and turns the bot right and left when it meets an obstacle.

CERTIFICATIONS

- Natural Language Processing in TensorFlow, DeepLearning.AI – Coursera
- What is Data Science, IBM – Coursera
- Python Data Structures, Michigan University – Coursera
- Programming for Everybody (Getting Started with Python), Michigan University – Coursera

OTHER ACTIVITIES

- Marketing Head at IET (Institution of Engineering and Technology), responsible for overseeing digital and physical marketing.
- Member of Central Marketing Committee for TechnoVIT, 2017, responsible for supervising and approving all physical marketing done during the fest.
- Student Coordinator of Integrated Circuit Unit, a technical event held during TechnoVIT, 2018, in which participants solved circuit designing challenges in teams.
- Secured first place in a face painting competition held during VIBRANCE, 2018.