Ali Asgar Padaria

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Education

Stony Brook University, M.S. Computer Science   08/2024 – Present
Nirma University, B.Tech in Computer Science (CGPA : 8.80 / 10.00)   10/2020 – 06/2024

Experience

Application Developer Intern, Johnson Controls-Hitachi, India   01/2024 – 05/2024

- **Engineered** a prototype for a Bluetooth ecosystem to control Hitachi Air Conditioners via an Android app, **increasing** connectivity stability by 33% and enabling NLOS communication.
- **Built** an Android application for Bluetooth AC control, **enhancing** user experience with **seamless connectivity** by leveraging Java and Android Studio, ensuring faster communication between devices by 40%.
- **Contributed** to the development and programming of Bluetooth chips, optimizing data handling for consistent and rapid AC control responses, increased communication range from 7m to around 55m.

Skills

Languages: C, C++, Java, Python, Solidity, SQL, HTML, CSS, JavaScript.
Frameworks, Tools and Software: Git, Github, Django, Node, Tailwind, Tensorflow, Keras, Android Studio

Projects

Excel Trader   Spongy01/Excel-Trader

- **Engineered** a Python-based trade helper application to **streamline** stock market trades through an Excel sheet interface, improving trade execution efficiency by 50% compared to manual methods.
- **Designed** and **implemented** an interactive Excel UI for traders to input parameters and automatically retrieve data from a trading **API**, increasing trade placing speed by more than 60%.
- **Accelerated** trade execution by 10x compared to traditional website GUIs by developing a minimalistic interface that presents only the most relevant details.
- **Implemented** a supplementary trade instrument fetcher to accelerate retrieval of trade items from the script file, **enhancing** overall application efficiency and **reducing** data fetching time by around 90%.

InterConnectX   Spongy01/InterConnectX

- **Developed** InterConnectX, a middleware application in Django, to facilitate communication between diverse clients using distinct API protocols, including REST and SOAP.
- **Collaborated** with a team during a hackathon to **develop** and **deploy** the application, earning **2nd** position and demonstrating strong teamwork
- Tools and Technologies: Python, Django, REST, SOAP, SQL.

Humour Detector   Spongy01/Humour-Detection

- **Created** a humor detection model using Natural Language Processing (NLP) techniques to automatically **classify** text as humorous or non-humorous, utilizing a dataset of 50,000+ labeled texts to train the model.
- **Built** a user-friendly interface that enables real-time text input and classification, with response times of less than 1 second, **enhancing** user interaction and engagement.
- Explored and **evaluated** various NLP methods, achieving approximately 88% accuracy in humor detection. Supported findings with detailed **analysis**, including confusion matrix and classification report, to **validate** model performance and insights.

Publications

Securing the Future: A Comprehensive Review of Security Challenges and Solutions in   Paper Link
Advanced Driver Assistance Systems
ConCollA - A Smart Emotion-based Music Recommendation System for Drivers   Paper Link
Traffic Sign Classification for Autonomous Vehicles Using Split and Federated Learning   Paper Link
Underlying 5G

Additional Experience And Awards

MOOC course: Ethereum and Solidity: The Complete Developer's Guide, Udemy
MOOC course: Deep Learning Specialization, Coursera
Runner Up, Hackathon: HackNUthon - Project - InterConnectX (Github) (Certificate)