Hello
I'm Sumukha Prasanna

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Skills

Web Development | Design and Analysis of Algorithms | Data Structures | Problem Solving | Internet of Things | Machine Learning | Database Management System

Projects

AI Chatbot (Python, Neural Network, NLP)[Modules : SpeechRecognition , pyttsx3 , PorterStemmer , PyTorch] :

- Implemented an AI Chatbot using an **Artificial Neural Network** for **Supervised Learning**
- Integrated **SpeechRecognition** and **pyttsx3** modules for Speech-to-Text and Text-to-Speech
- Input patterns are **tokenized** , and the **stopwords are removed**
- Trained the model with with **backtracking** and optimizations using **Adam Optimizer**. The model is stored using **PyTorch** and stored is stored as a **.pth file**
- GitHub Link: [GitHub Link to AI Chatbot]

Pulse Monitoring System (Arduino, ThingSpeak) [Wi-Fi module for data transmission]:

- Developed a Pulse Monitoring System using **Arduino** and integrated a **Wi-Fi module for data transmission**
- Enabled **real-time pulse monitoring** and **triggered alerts** for **abnormal pulse rates**
- Utilized **ThingSpeak** for **cloud data storage and analysis**
- GitHub Link: [GitHub Link to Pulse Monitoring System]

E-commerce Website (HTML, CSS, JavaScript, ReactJS, NodeJS, MongoDB):

- Designed an e-commerce website for a mall, enabling users to **book tickets, order food, and buy clothes online**
- Leveraged **ReactJS** for dynamic web components and **NodeJS** for the backend
- Used **MongoDB** for data storage
- GitHub Link: [GitHub Link to E-commerce Website]

Cab Booking System (C):

- Implemented a cab booking system in **C** language with functionalities for **user registration, login, and ride booking.**
- Used **encryption and decryption(simple and manual)** to secure user information in the system.
- Integrated a **wallet system** to manage user funds for ride payments.
- Implemented the **Floyd-Warshall algorithm** for calculating the **shortest distances** between different locations.

Ongoing (Capstone Project):

Automatic Question Paper Generator (MERN Stack , Python , TensorFlow , Flask , WordNetLemmatizer):

- Developing a **Deep Learning-based** question paper generator using **Python and TensorFlow**
- Integrating **natural language processing** techniques and **word embeddings** for processing **questions into numerical sequences**
- **Semantically tag difficulty index** of the question **based on the mark weightage and topic of the question**
- Creating a user-friendly frontend with **MERN Stack** and **Flask backend** for real-time question prediction and analysis

Experiences

- Learnt Unity 2D in a Gameathon(Gaming Hackathon)
- Learnt Python for Data Science through NPTEL

Link to certifications

Education

2020 - 2024
PES University, Electronic City - 7.7 cgpa

2018 - 2020
Deeksha Centre for Learning, Kanakapura Main Road - 86.83%

2015 - 2018
Carmel School, Padmanabhanagar - 92.66%

Languages

Java | C | Python | C++ | HTML | CSS | Javascript | MERN Stack