Bhargavi Nagulapally (she)

B.Tech - (2022-26)
Computer Science and Engineering
JNTUK

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EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech. CSE	Jawaharlal Nehru Technological University, Kakinada	8.94	2022-present
Senior Secondary	BIEAP	95.4%	2020-22
Secondary	SSC Board	99%	2020

EXPERIENCE

Artificial Intelligence Intern, Infosys *Feb. 2025 – April.2025*

- Developed an AI-powered Guest Experience Personalization System using LLMs and Retrieval-Augmented Generation (RAG) to extract real-time insights from guest reviews.
- Engineered a personalized dish recommendation system using XGBoost, incorporating feature engineering techniques to optimize model accuracy and enhance guest satisfaction through tailored suggestions.
- Implemented a scalable RAG pipeline with Together.ai and Pinecone DB for semantic search, review summarization, and context-aware sentiment analysis.
- Deployed automated alerting systems based on sentiment insights to enable proactive service response and improve operational efficiency.

Software Engineer Intern, IBM *May. 2024 - Jun. 2024*

- Developed and implemented sentiment analysis models using advanced NLP techniques to extract actionable insights from customer reviews.
- Conducted text preprocessing, feature extraction, and sentiment scoring leveraging the Naive Bayes algorithm for high-accuracy classification.

PROJECTS

- **Motion Mind: Smart Activity Recognition for Home Automation** *June. 2024 - July. 2024*
  Deep learning integrated with IOT Github
  – Developed a deep learning model using ResNet and OpenCV for real-time human action recognition, enabling intelligent automation in smart home environments.
  – Integrated human activity detection with IoT sensors to trigger home automation responses based on recognized movements, optimizing efficiency and responsiveness.

- **Vision Pong: Gesture-Controlled Gaming** *Sept.2024 – Oct.2024*
  Computer Vision Github
  – Developed an interactive Pong game controlled by real-time hand gestures using Python and OpenCV, enhancing user engagement through touchless gameplay.
  – Implemented a computer vision–based gesture recognition system for accurate hand tracking and smooth paddle control using webcam input.

TECHNICAL SKILLS

- **Programming**: Java,C/C++, Python
- **Development**: HTML, CSS, Flask
- **Databases**: MySQL, MongoDB(familiar)
- **CS Subjects**: Data structures and Algorithms, OOPs concepts, Operating system
- **Deep learning**: Familiar with Tensorflow, Keras, Standard Deep learning models and concepts
- **AI Frameworks :** Runway ML, Leonardo AI, Gamma, OpenAI.

RESARCH CONTRIBUTIONS

Rice Leaf Disease Detection through Deep Q-CNN: A Synergistic Approach with Reinforcement Learning

- Conducted original research integrating Deep Q-Learning with Convolutional Neural Networks (CNN) for accurate detection of rice leaf diseases, demonstrating strong experimental design and model evaluation.
- Authored a research paper (under review in Iran Journal of Computer Science – Springer) highlighting the proposed model's superior performance in agricultural disease classification.
- Implemented findings into a user-friendly application for real-time disease prediction, contributing to agricultural technology and precision farming. ***[Under Review]***

Rice Plant Leaf Disease Detection Using CNN

- Published research in Journal of Emerging Technologies and Innovative Research (JETIR), a UGC-approved journal with an impact factor of 7.95, demonstrating strong academic contribution.
- Applied advanced artificial intelligence techniques to improve the precision and speed of rice leaf disease detection, driving innovation in agricultural technology. ***[Research Paper]***

ACHIEVEMENTS

- **Cambridge English Preliminary English Test (PET),** Achieved Grade B (Level B1) certification with a full score in Speaking, demonstrating strong proficiency in practical English communication skills. *(June. 2023)*