PRANESHWARAN KANNAN

PYTHON-PROFICIENT AI/ML DEVELOPER | BRIDGING HUMAN-MACHINE INTERACTION

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SUMMARY

Highly motivated AI and ML Intern with a strong academic foundation in Artificial Intelligence and Machine Learning. Proficient in Python and R, with hands-on experience in machine learning model development and cloud architectures. Demonstrated ability in web automation (Selenium) and object detection with YOLO. Recognized for innovative solutions, including an award-winning IoT prototype at InventX 2023. Eager to contribute to cutting-edge AI projects and drive technological advancements.

TECHNICAL SKILLS

Langchain	GIT	Natural Language Processing (NLP)	Power BI
Python	R	Automation Anywhere	Jupyter Notebook
Selenium	Machine Learning	TensorFlow, YOLO model	Postman

PROJECTS

Object Detection with YOLOv8

- This project focuses on object detection, which is more complex than classification.
- While classification tells you "what" is in an image, object detection tells you "what" is in the image AND "where" it is (bounding box) and how confident the model is about it.
- The chosen model is YOLOv8, a state-of-the-art real-time object detection model.

Image Classification with MobileNetV2

- This project leverages MobileNetV2 transfer learning for image classification.
- It uses ImageDataGenerator for data augmentation and preprocessing.
- A custom classification head is built on MobileNetV2's pre-trained features,

Conversational Document Q&A System with LangChain and Local Files

- Build a Conversational Document Q&A System using LangChain.
- It will ingest local PDFs/text files, split them, and store embeddings in a vector database.
- Users can then ask natural language questions, and the system, powered by an LLM and a retrieval chain, will provide answers directly from the documents, citing sources.
- This demonstrates RAG for grounded, context-aware responses.

Dozed-off Sleep Inducer for Post traumatic & Mental disabled.

- This Jupyter notebook, "Sleep_inducer.ipynb", establishes the foundational environment for a sleep induction project by installing sounddevice and numpy.
- With these libraries, the project is poised to generate or play specific audio, indicating a core functionality centered around sound-based sleep aids.

HealthCare CRM

- This Python-based Healthcare CRM system manages patient data, appointments, and feedback using JSON files for storage.
- It offers a command-line interface for adding new patients, scheduling appointments, and logging patient feedback, streamlining essential healthcare interactions.

Rainwater Harvest Analysis and Visualization

- A valuable data visualization project for rainwater analysis could involve sourcing relevant hydrological datasets from platforms like Kaggle or other open meteorological archives.
- Using pandas, you would efficiently load and preprocess this rainfall data, handling time-series aspects and aggregating metrics.
- The core visualization, crafted with matplotlib, would then illustrate patterns like monthly rainfall distributions, annual trends, and cumulative precipitation.
- This project allows for insightful exploration of rainwater variability, aiding in harvest planning, and effectively showcases data analysis skills.

RESEARCH PAPERS & PRESENTATIONS

BLUE-EYE TECHNOLOGY

- Blue eye technology aims to create an intuitive and natural human-computer interaction by mimicking human perception.
- It involves systems that can understand and respond to human emotions, gestures, and gazes. This is achieved through a combination of sophisticated sensors, cameras, and artificial intelligence algorithms.
- The technology analyzes non-verbal cues to provide a more personalized and responsive user experience.
- Ultimately, it seeks to bridge the gap between human communication and machine understanding, making computers more emotionally intelligent and adaptive.

ACHIEVEMENTS

- Gold Category Award at InventX 2023: Recognized with a prestigious award at the innovation and research expo held at Multimedia University, Malaysia, for presenting an innovative IoT-based prototype named "Dozed Off" designed for post-traumatic and mentally disturbed individuals.
- Most Voted Invention: Garnered the highest number of votes from peers, experts, and attendees at InventX 2023 for "Dozed Off," which was recognized as a groundbreaking solution addressing critical mental health challenges through technology.
- Best Paper Award: Won the Best Research Paper Award at an Inter-college Fest for a topic on Blue-eye Technology, which bridges the gap between humans and machines by incorporating human-like abilities into computer systems.

EDUCATION

Bachelor of Science in Artificial Intelligence & Machine Learning
Hindusthan College of Arts & Science
2022 - 2025
CGPA: 8.7/10

Higher Secondary Schooling (Science Stream)
RK SreeRangammal Kalvi Nilayam Hr. Sec. School
2020
Cum Percent: 61

Secondary Schooling
Milton Matriculation School
2020
Cum Percent: 61.