PREETAM TONY J

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OBJECTIVE

Aspiring Artificial Intelligence and Machine Learning student seeking to leverage strong knowledge in machine learning algorithms and Python programming to contribute to innovative projects and drive impactful solutions. Dedicated to advancing AI technologies and applying analytical skills to solve real-world problems effectively.

WORK EXPERIENCE

Intern in Tech-A 30 Days

Over the course of this internship, I gained hands-on experience in machine learning by working on various projects, including:

- Fruit Classification using Deep Learning:
  - Developed a convolutional neural network (CNN) to accurately classifydifferent types of fruits, achieving high accuracy through data augmentation and fine-tuning.
- Titanic Survival Prediction:
  - Created a machine learning model using logistic regression and random forests to predict passenger survival on the Titanic, based on features such as age, gender, and class.
- Iris Species Classification:
  - Implementeda classification algorithm using k-nearest neighbors (KNN) and decision trees to identify iris species from petal and sepal measurements.
- House Price Prediction:
  - Built a regression model using multiple linear regression and gradient boosting to predict house prices based on various features like location, size, and number of rooms.
- Stock Market Price Prediction using LSTM:
  - Designed and trained a long short-term memory (LSTM) network toforecast stock prices, utilizing historical stock data and capturing temporal dependencies for improved accuracy.

Intern in Cognorise Infotech 30 Days

During this 30-day internship, I advanced my Python programming skills from basic to advanced by developing applications such as, Password generator, Sudoku solver, Calculator

EDUCATION

St Joseph's College of Engineering, Chennai 2022 - 2026
Bachelor of Technology in Artificial Intelligence and Machine Learning. CGPA: 8.81/10.00

AKT Memorial Vidya Saaket School, Kallakurichi 2022
12th Standard CBSE. Percentage: 80.0

AKT Memorial Vidya Saaket School, Kallakurichi 2020
10th Standard CBSE. Percentage: 90.0

TECHNICAL SKILLS

- Languages: Python (Proficient), C (Proficient), Java (Familiar)
- Web Development: HTML/CSS, JavaScript (basic)
- Database Technologies: SQL, SQLite, MongoDB
- Developer Tools and software: Flutterflow, GitHub, VS Code, GoogleColab, Figma, Microsoft Office, Canva
- Machine Learning Frameworks: Pandas, NumPy, Matplotlib, Seaborn, TensorFlow, Scikit-Learn, Keras

PROJECTS

- Traffic Sign Recognition Application for Road Safety Education:
  - Developed a computer vision system using OpenCV and deep learning to detect and classify traffic signsfrom images and video streams.
  - Implemented convolutional neural networks (CNNs) using TensorFlow/Keras for accurate traffic signclassification.
  - Utilized OpenCV for image preprocessing, feature extraction, and real-time detection within the application.Achieved high accuracy through model optimization techniques and data augmentation.
  - Designed and developed an interactive application aimed at educating children about traffic

symbols andpromoting road safety awareness.

- Medical Application for Disease Prediction and Ayurvedic Recommendations:
  - Developed a medical application to predict diseases based on symptoms and recommend ayurvedic medicinesor alternative suggestions.
  - Implemented machine learning algorithms to analyze symptoms and provide probable disease diagnoses.
  - Incorporated ayurvedic principles to recommend medicines and treatments aligned with holistic healthpractices.
  - Analyzed doctor prescriptions using natural language processing (NLP) to extract medicine information anddosage instructions.
  - Designed user interface for easy symptom input and detailed medicine information display.
- Offline Language Model using Hugging Face Transformers and ALPaCA Electron Model:
  - Developed an offline language model (LLM) using the Hugging Face Transformers and ALPaCA Electronmodel.
  - Implemented advanced natural language processing techniques to enable offline functionality.
  - Integrated transformer-based architectures for tasks such as text generation, sentiment analysis, andlanguage understanding.
  - Optimized model performance and efficiency to ensure smooth operation without internet connectivity.
- Currency Recognition and Financial Management Application for Visually Impaired Users:
  - Developed an application using TensorFlow and Keras for blind individuals to identify currency notes andmanage their financial transactions.
  - Implemented deep learning models to accurately recognize and classify different currency denominations fromimages captured by smartphone cameras.
  - Integrated functionality for users to securely store account information and manage their financial records.
  - Enabled real-time analysis of shopping bills using deep learning techniques to calculate the total amountspent and the change required.
  - Designed with accessibility in mind, ensuring ease of use through audio feedback and tactile interfaces forblind users.

Relevant Courses

- Foundations of Cybersecurity (Google)
- Introduction to MongoDB for Students (MongoDB)
- Supervised Machine Learning: Regression and Classification (Offered by Multiple Partners)
- HTML, CSS, and JavaScript for Web Developers (Johns Hopkins University)
- Introduction to Front-End Development (Meta)

Achievements

- Secured a CGPA of 8.81
- Notable Participant in IITB Mapathon
- Participant in Smart India Hackathon representing my Department and College
- Participant in No code AI Hackathon, HaRBInger Hackathon and several internal Hackathons

Other Interests

- Cricket, Badminton, Basketball