NANDIGAM AKSHAY

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Skills

- **Languages & Frameworks:** Python | C | C# | ASP.NET Core | JavaScript | React | Django
- **AI & Cloud:** AI | Machine Learning (ML) | TensorFlow | Deep Learning | Google Cloud (Vertex AI) | REST APIs
- **Core Programming Skills:** Object-Oriented Programming (OOP) | Data Structures & Algorithms(DSA) | Problem Solving
- **Databases & Web:** SQL | DBMS | HTML | CSS | Git

Experience

Hackathon — **Nasa Space Apps Challenge** — *Hyderabad* — **06/2023 - 06/2023**

- Designed and developed a **data visualization platform** to monitor NASA Earth satellite data, increasing accessibility for scientists and the public by 40%.
- Applied **Machine Learning algorithms** using Python and TensorFlow to enhance climate prediction accuracy by **20%**, improving data -driven decision-making.
- Built an **interactive UI** with React and JavaScript, improving user engagement by **25%** and simplifying complex satellite data analysis for **500+ unique users within the first month.**
- Leveraged **AWS cloud services** for scalable real-time updates, ensuring seamless cross-device compatibility and high performance.
- Collaborated with a cross-functional team to deliver the project, achieving **Top 5 ranking** in the NASA Space Apps Hackathon.

Education

Bachelor of Technology — **VNR Vignana Jyothi Institute** — *Hyderabad* — **09/2020 - 09/2024**

- Major in Electrical and Electronics Engineering

Projects

SMART DISASTER RESPONSE AND MANAGEMENT SYSTEM (SDRAMS):

- Designed and developed an **MVP application** for real-time disaster predictions, emergency alerts, and community safety, significantly enhancing **preparedness by 70%**.
- **Built interactive features** like posts, reels, stories, group chats, and community tools using **React**, **ASP.NET Core**, and **Django**, creating a user-centric platform for communication and collaboration.
- **Integrated AI/ML and Deep Learning models** to analyze climate data, predict potential disasters, and automate early alert notifications.
- Developed a platform for **community formation**, enabling users to form groups, share updates, and discuss real-time disaster situation in their areas.
- Built a seamless, scalable, and user-friendly interface with **React**, incorporating features like interactive maps and location-based updates for better accessibility.

VOICE ASSISTANT:

- Created a desktop voice assistant using Python, SpeechRecognition, and **OpenAI GPT API**.
- Integrated Weather API and Google Calendar API for dynamic updates. Achieved **85% accuracy** in task execution, improving user productivity by **60%**.

BODE PLOT GENERATOR:

- Developed a responsive **web tool** using **Python** and **JavaScript** to generate Bode plot of a transfer functions, providing results like gain margin, phase margin, and crossover frequencies.
- Designed to assist **juniors** in understanding system stability concepts interactively.

ANTI-SLEEP ALARM DEVICE FOR DRIVERS:

- Designed an IoT-based system using Arduino, relay modules, and sensors to detect drowsiness and trigger alarms through sound and vibration, enhancing driver safety in real time.

Mentorship

- **AI/ML Workshop:** Served as a mentor in an AI/ML workshop aimed at helping junior students understand fundamental concepts and applications of artificial intelligence and machine learning. **(01/2024 - 02/2024)**
- **Tutor:** Programming | Data Structure and Algorithms | career advice | coding interview prep

Others

- **Bronze Award**: Awarded Top 5 Project in NASA Space Apps Challenge Hackathon. **(06/2023)**
- **Achievement**: Ranked within the top 2,500 participants in Google Code Jam coding competition by developing and optimizing algorithms for challenging problems; showcased ability to solve complex technical challenges under time constraints. **(04/2023)**
- **Skil Badge**: Earned the Google Cloud Skill Badge by mastering prompt design within Google Cloud's Vertex AI. **(11/2024)**