SRI KRISHNA CHAITANYA TALASILA

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Summary

AI & Machine Learning Engineer | Backend Developer with expertise in developing intelligent systems, deep learning, and data-driven decision-making. Experienced in designing scalable architectures, optimizing AI models for real-world applications, and integrating backend solutions to support AI-driven platforms. Passionate about automation, predictive analytics, and leveraging technology to solve complex problems. Strong problem-solving skills with hands-on experience in research, prototype development, and AI-powered applications.

Education

B.Tech in CSE, VNR VJIET CGPA: 8.67 (Pursuing 6th Sem)	**2022 - Present**
Intermediate, Sri Chaitanya College Percentage: 97.1%	**2020 - 2022**
10th, Sri Chaitanya School GPA: 10.0	**2019 - 2020**

Experience

Research Intern – Infant Activity Recognition   *VNR VJIET | Jan 2025 – Present | Hyderabad, India*

- Designed and implemented a threshold-based and machine learning approach to classify sleep and wake states with **85% accuracy**, using sensor data from 15 infants.
- Processed and analyzed **over 100 hours** of accelerometer data, applying statistical techniques and a **30-minute sliding window approach** for robust classification.
- Validated model predictions against activity diary data, optimizing classification thresholds to enhance accuracy.
- Automated data preprocessing and analysis in Python, reducing manual effort and improving workflow efficiency.

Projects

Student Alumni Interaction Platform | Backend Developer | Node.js, MongoDB, Firebase

- Developed and deployed a real-time interaction platform for 500+ students and alumni, enabling job postings and networking with optimized RESTful APIs for faster data retrieval.
- Integrated Firebase for secure image handling and MongoDB for scalable structured data management.

Multispectral Image Analysis for Crop Health Monitoring | Developer | Python, OpenCV, TensorFlow, Remote Sensing

- Analyzed Sentinel-2 L2A satellite images to calculate NDVI, NDRE, GNDVI, and NDWI indices, providing insights into crop health and environmental conditions.
- Handled large-scale geospatial data for real-time monitoring using Jupyter Notebook.
- Used NumPy and Pandas for data manipulation and feature engineering. Created an AI-powered pipeline for precision agriculture insights.

Plant Disease Detection | Developer | TensorFlow, VGG19, Pandas, NumPy

- Built a deep learning model using VGG19 with transfer learning to classify plant diseases.
- Used Pandas and NumPy for efficient data preprocessing and feature extraction. Processed and analyzed high-resolution agricultural images to identify diseases.
- Achieved 80% accuracy with optimized training strategies (EarlyStopping, ModelCheckpoint).

Skills

Programming Languages: C, C++, Python
Concepts: Object-Oriented Programming (OOPs), Data Structures and Algorithms (DSA)
Machine Learning: PyTorch, Scikit-learn, Model Optimization, Transfer Learning
Data Analysis & Visualization: Pandas, NumPy, Matplotlib, Seaborn
Computer Vision: OpenCV
Databases & Backend Development: MySQL, MongoDB, Firebase, Nodejs, Expressjs
Version Control: Git, GitHub
Additional: AI Research, Data Preprocessing

Achievements

- Finalist in Krithathon for developing an AI system that automated solar cell health checks, detecting cracks, dirt, and defects, improving maintenance efficiency by 30%. This experience strengthened my leadership and collaboration skills and demonstrated my ability to meet tight deadlines.
- Finalist in Technovista (VNR VJIET) out of 100+ teams for creating an AI-based plant disease detection model, enhancing agricultural management. Showcased my ability to adapt to new technologies.
- Advanced to the final round in the Turing Cup coding contest, ranking in the top 25% by solving algorithmic challenges with optimized Python code.
- Finalist in Hack4SDG at IIT Hyderabad, competing with 200+ teams. Designed a sustainable AI solution for farmers to monitor their fields using satellite data and remote sensors. Demonstrated effective problem-solving, teamwork, and communication skills to address real-world challenges.

Extracurricular Activities

- Organized and contributed as an active member of the Computer Society of India (CSI), managing events and participating in technical discussions.
- Attended workshops, technical talks, and seminars, staying informed on the latest advancements in technology.
- Edited a short film to enhance visual storytelling, ensuring smooth transitions and a cohesive narrative.
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Strenghts

- Problem-Solving
- Adaptability
- Teamwork
- Self-Learning
- Positive Attitude

Hobbies

- Cooking
- Gaming
- Photography
- Video Editing