P. Sai Preetham

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Professional Summary :

I am a driven and curious pre-final year student specializing in Artificial Intelligence and Machine Learning, passionate about solving complex problems and contributing to cutting-edge AI technologies. Currently authoring a research paper on

"Unlocking Insights in Ultrasonic Polymer Welding: Advanced Image Processing and Data Integrity for SEM-Based Quality Analysis in NDE 4.0"

Seeking to apply my strong foundation in AI, Python programming, and real-time systems towards developing innovative solutions in AI-driven environments.

Education :

Dayanda Sagar University   *Bangalore,IND*   *Expected June 2026*

Bachelor of Computer Science Specializing in Artificial Intelligence and Machine Learning

Technical Skills :

Programming Languages: Python (Proficient), C (proficient)

Frameworks: OpenCV, NumPy and Familiar with TensorFlow, PyTorch (actively learning)

AI & ML Expertise: Machine Learning Algorithms, Deep Learning, Real-Time Image Processing (specializing in computer vision)

Project :

● Face Detection in real time using OpenCV

- Developed a real-time face detection system using OpenCV and Dlib, optimizing accuracy and efficiency.
- Focused on optimizing efficiency and obtaining precise bounding box coordinates for facial detection.
- Utilized OpenCV library for robust image and video processing, enabling accurate facial recognition.
- Leveraged Dlib library for pre-trained facial landmark detection to identify and detect facial structures with precision.
- Engineered efficient array processing using NumPy to enhance computational performance.

Events & Participation :

- Attended *GitHub Constellation 2024*, gaining insights into cutting-edge technologies and developer tools used in AI and software development.
- Participated in a cybersecurity **CTF (*Capture The Flag*)**, showcasing strong problem-solving abilities in cryptography and data analysis.

Behavioral Strengths:

- Strong problem-solving abilities with attention to detail.
- Proactive in learning and exploring advancements in AI.
- Effective collaborator with excellent teamwork skills.
- Take ownership and work independently to break down complex challenges into actionable solutions.