

SINDIRI MANIKANTA SWAROOP

(+91) 88975 77277 – manikantaswaroopsindiri@gmail.com – Palasa, Andhra Pradesh

LinkedIn – GitHub – Portfolio

Summary

Aspiring **Software Engineer** skilled in **Deep Learning, Computer Vision, and Full-Stack Web Development**. Proficient in **Python, PyTorch, and JavaScript** with experience in CNN model development, data pipelines, and AI deployment. Seeking roles in AI, Software Engineering, or Research to apply data-driven problem-solving and development expertise.

Experience

Summer Intern – CSIR-CMERI, Durgapur

May 2025 – July 2025

- Developed and optimized **CNN models** for sonar-based docking of AUVs, improving classification accuracy to **95.6%**.
- Designed and deployed a **data pipeline** (.son → .ppm) integrated with PyTorch for real-time inference.
- Applied **DenseNet121 transfer learning**, GAN-based augmentation, and hyperparameter tuning to enhance robustness.
- Collaborated with research mentors to streamline sonar classification workflows for experimental validation.

Technical Skills

Programming Languages	: Python, Java , SQL
Web Technologies	: HTML, CSS, JavaScript
Machine Learning	: CNNs, Supervised & Unsupervised Learning, Transfer Learning
Tools & Libraries	: PyTorch, NumPy, Pandas, Scikit-learn, Excel , Linux, Excel, Matplotlib, Git, Power BI

Projects

Autonomous Underwater Docking using Sonar-based CNN

GitHub

- Developed CNN models achieving **95.6% accuracy** for AUV sonar docking orientation.
- Implemented a **real-time inference system** using PyTorch, reducing processing latency by 25%.

Tiles Showroom Web Application

GitHub

- Built and deployed a responsive product catalog website using **HTML, CSS, and JavaScript**.
- Integrated dynamic inquiry forms, improving customer interaction and usability.

Clothing Image Classification System

GitHub

- Trained a **TensorFlow CNN** to classify clothing types (top-wear vs bottom-wear) with **93% accuracy**.
- Improved model generalization using data augmentation and dropout regularization.

Education

Vishnu Institute of Technology, Bhimavaram

Sep 2023 – Present

- Bachelor of Technology in Information Technology**
Current CGPA: 9.0 / 10.0

Expected Graduation: 2027

Achievements & Certifications

- 3rd Place – Sparktank Hackathon (2025)**: Developed “BharatBox,” an IoT-based machine monitoring solution (20,000 prize).
- IASc-INSa-NASI Research Fellow** – Selected among top 1% nationwide for research internship at CSIR-CMERI.
- NPTEL Certified – Artificial Intelligence**.
- Presented paper “How AI is Changing the World” at GMRIT Intercollege Symposium.
- Secured Top 3 position in “Samukuth” Coding Competition at ANITS.

Leadership

Organizer – College Fest: Managed event logistics, scheduling, and team coordination.

Organizer – DoIT Club: Led coding workshops and peer-learning sessions for students.