

SINDIRI MANIKANTA SWAROOP

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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.