Remalla Ratna Kowshik

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Career Objective

A passionate AI and Data Science undergraduate with a strong foundation in machine learning, data analysis, and research methodology. Skilled in applying AI models to real-world problems, with interests in deep learning, explainable AI, and data-driven research. Seeking a role to contribute to impactful AI research and innovation.

Education

Veltech University — **Chennai**
Bachelor of Technology in Artificial Intelligence and Data Science, GPA: 84% — *2022–2026*

Vignan Cooperative Junior College — **Vadlamudi, Guntur**
Intermediate in MPC (Maths, Physics & Chemistry), Score: 82.7% — *2020–2022*

Technical Skills

Programming Languages: Python, Java, SQL, R

Frameworks/Libraries:: TensorFlow, Keras, Scikit-learn, OpenCV, NumPy, Pandas

Tools: MySQL, Jupyter, Google Colab, Git, VS Code, Eclipse IDE

Domains: Machine Learning, Deep Learning, Transfer Learning, Data Analysis

Research Interests: Deep Learning, Computer Vision, Explainable AI, Medical Imaging

Projects

AI-Based Crop Disease Detection Platform:

- Developed a CNN-based plant disease classifier using transfer learning (ResNet, VGG16) and Grad-CAM visualizations. Achieved 94% accuracy on custom dataset. Conducted performance comparisons across models and optimized with TensorFlow Lite.
- Integrated into a Flask-based web app with real-time classification and e-commerce capabilities.

SONAR Rock and Mine Detection Using Machine Learning:

- Evaluated multiple classifiers (SVM, KNN, Random Forest) on sonar signal dataset using scikit-learn, with 89% accuracy.
- Visualized model performance via confusion matrices and ROC curves. Deployed as Flask web app with real-time user input handling.

Underwater Image Denoising using Deep Learning U-Net & CNN:

- Implemented a U-Net-based CNN model for underwater image denoising, achieving 90% accuracy along with a PSNR improvement of over 28 dB and SSIM of 0.89 on test images.
- Handled end-to-end pipeline including data preprocessing, augmentation, model training (TensorFlow/Keras), and evaluation, enhancing underwater image clarity by over 40%.

Experience

GrowthLink — **AI Research Intern**
Duration: 25th February, 2025 – 25th March, 2025

- Contributed to underwater image denoising research using U-Net CNN, improving clarity by 40% with 90% accuracy.
- Focused on data preprocessing, PSNR/SSIM evaluation, and documentation of experimental results.

Hobbies

Photography, Reading Books, Playing Cricket, Watching Movies & Series