NANDAN UPADHYAYA

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EDUCATION

NMAM Institute of Technology — **Nitte, Karnataka, India**
Bachelor of Technology in Artificial Intelligence and Data Science ***(CGPA: 9.72/10.0)*** — *2022 - 2026*

PoornaPrajna Pre-University College — **Udupi, Karnataka, India**
Higher Secondary Education (Science) ***(Percentage: 98.16%)*** — *2020 - 2022*

Vidyavardhaka English Medium School — **Shirva, Karnataka, India**
Secondary Education ***(Percentage: 92.8%)*** — *2020*

PROFESSIONAL EXPERIENCE

Ganglia Technologies Pvt. Ltd — **Manipal, India**
Software Engineer Intern — *June 2024 - July 2024*

- Engineered deep learning models achieving 99% accuracy for ulcerative colitis severity classification using Mayo Endoscopic Score
- Applied SMOTE to address class imbalance, improving model accuracy by 50% over baseline.
- Designed ensemble voting mechanism across multiple models, enhancing prediction consistency by 37%

SKILLS

Programming & ML: Python, C, Java, TensorFlow, Keras, PyTorch, Scikit-learn, NLTK, Pandas, NumPy
Data Analysis & BI : Power BI, PostgreSQL, Matplotlib, Seaborn
Web Deployment : Flask, Node.js, Express.js, React, Vercel, Render, Firebase, MongoDB Atlas, NeonDB
AI Domains : Machine Learning, Deep Learning, Natural Language Processing, Generative Adversarial Networks
Version Control : Git

PROJECTS

Terrain-Aware SAR Image Colorization Using Conditional GAN — **Advanced Deep Learning**
Deep Learning-Based Remote Sensing Image Enhancement

- Developed a deep learning pipeline translating SAR imagery to RGB images using a fine-tuned ResNet34 terrain classifier integrated with a conditional GAN, improving terrain classification accuracy by 45% over baseline.
- Enhanced perceptual quality metrics (PSNR, SSIM, FID) by 30–50% compared to standard GANs without terrain conditioning.
- Evaluated the model using various metrics such as PSNR, SSIM and FID.
- Project Link: https://github.com/Nandan-Upadhyaya/SAR

Crop Yield Prediction System — **Full-Stack ML Application**
Full-Stack Machine Learning Application for Agriculture

- Built a full-stack responsive web application predicting crop yields from environmental and agricultural data, achieving 98% accuracy with a Decision Tree model.
- Designed a Flask-based REST API for predictions and user authentication, integrated with MongoDB Atlas for secure multi-user data storage.
- Deployed frontend on Vercel and backend (Flask API + ML model) on Render, enabling full end-to-end accessibility.
- Website Link: https://crop-yield-prediction-advanced-ui-phi.vercel.app/

PUBLICATIONS

- Upadhyaya, N., et al. (2024). "Application of Machine Learning for Predicting the Crop Yield." In Proceedings of IEEE MPCIT 2024, JNN College of Engineering, Shivamogga. **DOI:** 10.1109/MPCIT57991.2024.10892647

CERTIFICATIONS

- **JNCIA-DevOps** – Juniper Networks Certified Associate – Automation and DevOps — *View Certificate*

LEADERSHIP & ACHIEVEMENTS

- **Technical Co-Coordinator** — Department of Artificial Intelligence and Data Science (2023-2024)
- **HackFest Finalist** — Secured top 15 position among 60 teams in national-level hackathon by Finite Loop Club