MANOGNYA LOKESH REDDY

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https://manognya86.github.io/Portfolio/

EDUCATION

Master of Science in Artificial Intelligence, University of Michigan-Dearborn   **Jan 2025 – Dec 2026**

Bachelor of Engineering (AI&ML), Bangalore Institute of Technology (VTU), Bengaluru, India GPA: 3.6   **Nov 2020 – May 2024**

TECHNICAL SKILLS

- **Programming Languages:** Python, C++, SQL, HTML, CSS.
- **Frameworks:** TensorFlow, Keras, Pandas, NumPy, Matplotlib, PyTorch, Seaborn.
- **Technologies:** Excel, Word, Access, Git & GitHub, AWS, Docker.
- **Machine Learning:** Regression, Clustering, Classification, Natural Language Processing (NLP), Model Deployment.
- **Deep Learning:** Neural Networks, CNNs, RNNs, Transformers.
- **Productivity Tools:** Microsoft Office Suite, Google Workspace, Canva / Graphic Design.

EXPERIENCE

Software Engineer Intern, **Donyati India Pvt Ltd, Bengaluru, India**   **Nov 2023 - Dec 2024**

- Developed an end-to-end Time Series Forecasting ML application for MNCs, improving forecasting accuracy and decision-making. Enhanced workflow for **20 teams**, increasing operational efficiency by **25%**.
- Designed and implemented **automated data pipelines**, reducing manual preprocessing effort by **40%**.
- Optimized forecasting models using **LSTM and deep learning techniques**, leading to a **15% improvement** in predictive accuracy.

Co-op intern, **Donyati India Pvt Ltd, Bengaluru, India**   **Mar 2023 - Nov 2023**

- Developed a Proof of Concept (POC) for a banking client, implementing an **OCR-based insurance document processing system** using Python, OpenCV, Tesseract OCR, and NLP techniques that achieved **97% accuracy** in handwritten text extraction.
- Designed **automated text preprocessing pipelines**, reducing document digitization time by **30%**, ensuring accurate OCR results and structured digital storage.
- Fine-tuned OCR models with **deep learning and NLP techniques**, boosting recognition accuracy by **20%**.

Machine Learning Intern, **Prinston Smart Engineer, Bengaluru, India**   **Sept 2023**

- Developed a **Cancer Cell Prediction model**, achieving **92-95% classification accuracy**, aiding in early diagnosis.
- Improved **feature selection and model optimization**, reducing false positives by **15%**.
- Collaborated with a team to fine-tune models and improve the interpretability of predictions for agricultural and medical applications.

PROJECTS

AEGAN + SRGAN FOR Hi-Res IMAGE SYNTHESIS | (Python, Neural Network, Pytorch)   **Jan 2025 - May 2025**

- Developed an Auto-Embedding GAN (AEGAN) to enhance and colorize historical/low-resolution images into high-resolution outputs, addressing training instability via gradient penalty and mixed precision training. Integrated JWT-secured REST APIs for scalable image processing.
- Achieved 37% higher synthesis quality (FID score) and 60% faster inference compared to traditional GANs, with 89% GPU utilization through optimized data pipelines and Docker containerization. System versatility enabled enhancements across medical, archival, and artistic image types, reducing deployment setup time by 50%.

DOCU DETECTIVE.AI | (Python, LangChain, Chroma DB, OpenAI)   **Oct 2023 - Mar 2024**

- Built an interactive PDF document analysis tool to enable dynamic chat-based interactions to extract insights. It aimed to assist people to translate vernacular languages into desired language.
- Enhanced data extraction accuracy by 40%, allowing users to quickly retrieve relevant information from large PDF documents. Improved user engagement by 35% through interactive conversations with documents, streamlining information retrieval processes.

BONE FRACTURE DETECTION | (Python, TensorFlow, Keras, OpenCV)   **Sept 2023 – Nov 2023**

- Developed a deep learning model using CNNs and SVMs to analyse X-ray and MRI images for automated bone fracture detection, implementing data preprocessing techniques like noise reduction, contrast enhancement, and feature extraction to improve diagnostic accuracy.
- Collaborated with medical professionals to align the model with clinical standards, achieving 92-95% accuracy in early fracture detection and aiding personalized treatment planning.

SKIN DISEASE DETECTION | (Python, TensorFlow, Keras, OpenCV)   **Jun 2023**

- Designed a machine learning system to detect skin diseases by analyzing images of infected areas using a CNN model. Gathered skin diseases dataset from various data sources and performed data augmentation to improve model generalization.
- Preprocessed data to enhance image quality and improve classification precision, achieving over 90% accuracy. The tool simplifies early diagnosis, reducing errors and assisting healthcare providers in faster decision-making.

PUBLICATIONS

- Automated White Blood Cell Subtype Classification: A Robust Deep Learning Approach for Precision Diagnostics, IJARESM, Volume 13, Issue 5, May-2025,
- Built Docu Detective.AI – A PDF Referencing Chatbot, IRJIET, Vol. 8, Issue 4, April 2024.

- Bias and Fairness in AI Model, IJISRT, Vol. 9, Issue 9, September 2024.
- Time Series Forecasting using Machine Learning Models — Published on YouTube by Donyati.

CERTIFICATION

1.	Oracle Cloud Infrastructure 2025 Certified AI Foundations Associate	Mar 2025
2.	Oracle Certified Fusion Cloud Associate (SCM, CX, ERP, HCM)	Mar 2025
3.	Oracle Certified GENAI Professional	Jul 2024
4.	Oracle Cloud Infrastructure 2023 Certified AI Foundations Associate	Oct 2023
5.	Google Cloud Skill boost: GCP skill badges	Oct 2022

NON - TECHNICAL SKILLS

- **Project Management:** Planning & Organization, Task Prioritization, Collaborations
- **Decision-making & Problem-solving skills:** Critical & Analytical thinking, Strategic planning, Time management
- **Administrative & Communication skills**
- **Event Management & Organization:** Team Management, Event Planning, Logistics, Budgeting, Fundraising, Marketing, Event Coordination & Promotion, Social Media & Outreach

LEADERSHIP & CAMPUS INVOLVEMENT

Treasurer - Google Developer Student Club, Bengaluru, India   **Jun 2023 - Jun 2024**
- Plan and manage budgets for 10+ events, ensuring efficient use of resources and demonstrating strong organizational skills
- Secured 5+ corporate sponsorships through targeted outreach, strengthening industry partnerships.
- Designed and implemented data-driven social media campaigns, increasing event participation by 20%.

Secretary - Rotaract club of Bangalore Institute of Technology, Bengaluru, India   **Jun 2022 - Jun 2023**
- Coordinate 15+ community service events and 10+ international service events with a team of 30 and 100+ volunteers
- Develop event schedules, oversee logistics, and manage on-site operations
- Promote events through social media and community outreach, increasing engagement by 30%

Event coordinator - Rotaract club of Bangalore Institute of Technology, Bengaluru, India   **Jun 2021 - Jun 2022**
- Plan and execute 10+ events with 200+ participants, ensuring smooth operations
- Communicate with vendors and stakeholders to align logistics with event goals
- Develop innovative event concepts to boost participation and engagement

EVENT LEADERSHIP & MANAGEMENT

BIT Got Talent, Non-Technical Fest at Bangalore Institute of Technology   **Jan 2024**
- Planned and organized a talent fest for 300+ new students, providing a platform for self-expression
- Researched and invited performers and judges from the local community, enhancing event credibility
- Created and distributed promotional materials through social media, boosting event attendance by 75%

Winter Donation Drive, Bengaluru, India   **Dec 2023**
- Coordinated a winter donation drive, collecting and distributing 3000+ clothing items for orphanages
- Reached out to local businesses, university students, and neighbourhood residents for contributions, demonstrating strong interpersonal skills
- Developed and executed a social media marketing plan, increasing participation by 60%

Mega Trek, Fundraiser Event in Bengaluru, India   **Oct 2023**
- Organized a fundraising trek to collect funds for providing it to children with heart surgery
- Engaged university students and local community members to raise awareness about childhood heart disease and environmental conservation
- Created online and offline marketing materials, resulting in a 50% increase in fundraiser contributions

Dhruthi Utsav, Women Entrepreneurs Event in Bengaluru, India   **May 2023**
- Led a team of 50 members to organize an event showcasing 30+ women-owned businesses
- Contacted and secured participation from prominent entrepreneurs, fostering networking opportunities
- Developed marketing content for social media, resulting in a 40% increase in event turnout

Party in Pink, Breast Cancer Awareness Event in Bengaluru, India   **Nov 2022**
- Planned and implemented a breast cancer awareness campaign, engaging 500+ community members
- Researched and partnered with hospitals for accurate information and participant involvement
- Designed flyers and social media posts, raising ₹300,000 to aid treatment for 13 children

Rota Fest, Fundraiser Event in Bengaluru, India   **June 2022**
- Organized a recreational event for underprivileged children, attracting 200+ participants
- Recruited and managed volunteers, ensuring smooth event execution
- Utilized social media platforms to promote the event, increasing community support by 70%

EXTRA CURRICULAR

- National-level swimmer, represented Karnataka and won multiple medals, excelling in backstroke.
- State-level football player, represented the school team in state championships.
- Practiced Mridangam for ten years under Vidwan Shri Dr. Rajgopal, a national award-winning musician.