

Anidipta Pal

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EDUCATION

Bachelor of Technology, Computer Science Engineering (AI & ML)

Heritage Institute of Technology, Kolkata

YGPA (1st Year): 9.0

Aug 2023-July 2027

Kolkata, WB

EXPERIENCE

ML Engineer

Omdena, Worldwide

May 2024 - Present

- Focused on advanced machine learning projects addressing climate resilience and food security, collaborating with a global team to develop impactful solutions, in **Bangladesh**.
- Developed and optimized time-series models to predict maize yield, achieving a 15% increase in forecasting accuracy, which enabled faster response times to climate-related changes and enhanced crop yield management, in **Kenya**.
- Led data preprocessing and geospatial analysis for a river water quality assessment project using Rasterio for satellite data processing and developing models that improved water quality forecasting accuracy by 20%, in **Kenya**.
- Processed LCLU, CO2, and vegetable data from Google Earth Engine (GEE) for Milan's Zone 9. Built interactive dashboards from scratch, improving the UI and boosting model accuracy from 85% to 93%, while increasing stakeholder engagement by 25%, in **Italy**.

Data Analyst

Evoastra Ventures, Mumbai

Jun 2024 - Aug 2024

- Conducted data analysis and created dashboards for 6 projects, improving data accessibility and efficiency by 21.67%.
- Contributed to report documentation and presented key insights, driving an 8.75% increase in project engagement.

Data Science Internship

Null Class, Bangalore

Feb 2024 - Apr 2024

- Developed a real-time emotion detection system, improving accuracy from 72% to 92% using OpenCV, TensorFlow, and Keras, enhanced with data augmentation and chatbot integration, resulting in a 25% increase in user interaction.
- Contributed to predictive analytics models, generating data-driven insights that boosted decision-making efficiency by 11.85%.

PROJECTS

Pragati Aid

Sep 2024

Hack Synthesis - GitHub: <https://github.com/Anidipta/Pragati-Aid>

- Developed a disaster forecasting system using machine learning and blockchain, improving prediction accuracy by 8.7% and ensuring secure donations.
- Implemented GeoTIFF-based visualizations and district-level forecasting, achieving 96% accuracy and enhancing real-time disaster preparedness by 21%.

Drone-Based Intelligent System for Apple Orchard Management

Aug 2024 - Sep 2024

Hack Heritage'24 - GitHub: <https://github.com/Anidipta/AEML>

- Developed a cloud-based apple orchard management system using YOLO for apple counting, disease classification, and leaf disease detection, integrating cloud storage and IoT sensors for real-time data analysis.

- Designed and deployed a Multimodal Decision-Level Fusion pipeline and created a user-friendly dashboard for efficient monitoring, visualization, and decision-making.

People Talking on Phone in Danger Zones

Mar 2024 - Apr 2024

Hack Fusion - GitHub: <https://github.com/Anidipta/Hack-Fusion-2k24>

- Developed a real-time system using YOLO and ResNet50 to detect people talking on phones in no-mobile zones, deployed through Streamlit, achieving 93% detection accuracy.
- Created software for hardware stimulation, bounding box algorithms, and IOU curves, improving model performance by 98.79% in detection precision.

Fraud Detection System,

Nov 2023

Prasunethon Hackathon - GitHub: <https://github.com/Anidipta/Prasunethon-Hackathon>

- Developed a machine learning-based fraud detection system, achieving 95% accuracy, through model optimization and quantization, enhancing fraud detection efficiency.
- Implemented feature engineering, model evaluation techniques, and model optimization with quantization, improving system performance and user experience.

Cloudburst Prediction System,

Sep 2023 - Oct 2023

Hack Heritage'23 - GitHub: <https://github.com/Jibitesh-Chakraborty2811/CloudPhishersCloudBurstFinalProject>

- Built a real-time CNN-LSTM model using GIS-based predictions from meteorological data, achieving 97-98% accuracy.

SKILLS

Programming Languages: Python, C/C++, Java, R.

Backend Technologies: Django, Flask, SQL.

Frontend Technologies: HTML/CSS, Streamlit.

Libraries & Frameworks: NumPy, Pandas, Matplotlib, Seaborn, OpenCV, YOLO, TensorFlow, Keras, Scikit-Learn, Rasterio, GLAD, BeautifulSoup, Scrapy, Selenium, Dash.

Tools & Platforms: MS Excel, Looker Studio, Google Analytics, PowerBI, Tableau, PowerPoint, Git/GitHub.

Leadership Skills: Team Management, Strategic Planning, Effective Communication, Problem-Solving, Responsibility.

ACHIEVEMENTS & CERTIFICATES

- 1st Place in VizSpark, EGS Pillay Engineering College.
- 2nd Place at the Video Frame Sorting Hackathon, Machine Hack, Bangalore.
- Top 50 finalists in the SIF Space Hackathon, ISRO, Faridabad.
- Top 10 finalists for Tech Intellina, out of 240 teams, IET YPS at JU, Kolkata.
- 2nd Runner-up at Hack Synthesis'24, 20 finalists, UEM, Kolkata.
- 2nd Runner-up at Campus Connect out of 250 teams, IIM, Rohtak.
- 3rd Runner-up at Hack Fusion out of 300 teams, NIT, Jamshedpur.
- 3rd Runner-up at Hack Heritage, HIT, Kolkata.
- 4th Runner-up at Contract Risk Management Hackathon, out of 250 teams, IIT Madras.