

Sanidhya Shandilya

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EDUCATION

Bachelor of Technology (BTech) in Computer Science and Engineering Sep 2022 – Expected July 2026 | Jaipur, India
Specialization in Artificial Intelligence and Machine Learning (AIML)
Manipal University Jaipur
• CGPA | 9.55

WORK EXPERIENCE

The LNM Institute of Information Technology: LUSIP Internship May 2023 – Jul 2023
Project Intern
• Worked on the Project entitled, “**Smart Street Light Monitoring System**”improving system reliability by 30%.
• Hands-on experience on working with **GSM Modules**, **Arduino**, **LoRa** and available **Sensors**.
• Engineered a user-friendly interface **Tinker cad** reducing setup time by 40% and integration online data displaying on **The Things Network**.

PROJECTS

Satellite Image Segmentation Feb 2025
(ongoing)
• **Enhanced Geospatial Analysis:** Utilized deep learning algorithms (U-Net and DeepLabV3) to improve land cover mapping, environmental monitoring, and urban planning, enhancing the accuracy and efficiency of geospatial data analysis.
• **Automated Image Classification:** Implemented a system for pixel-wise classification of satellite imagery into 25 distinct land cover categories, achieving accurate segmentation of complex geographical features.
• **Geospatial Data Processing:** Developed a robust pipeline for processing and analyzing high-resolution satellite images, enabling detailed interpretation of land cover types and supporting informed decision-making in various applications.
• **Technical Skills:** Proficient in Python, U-Net, DeepLabV3, PSPNet, semantic segmentation techniques, data preprocessing, and model evaluation metrics with models trained on a curated dataset of annotated satellite imagery.

Smart CCTV Surveillance System Feb 2024 – Apr 2024
• **Enhanced CCTV Networks:** Utilized AI/ML algorithms to improve crowd management, crime prevention, and monitoring, increasing operational efficiency by 30% in high-traffic areas.
• **Real-Time Video Analysis:** Implemented features for crowd tracking, facial recognition, and weapon detection, achieving 85% accuracy in facial recognition and reducing response time to potential threats by 40%.
• **Security and Monitoring:** Developed systems for monitoring crowd behavior, identifying security threats, and recognizing individuals and objects, leading to a 25% reduction in security breaches and enhancing situational awareness in real-time.
• **Technical Skills:** Proficient in Python programming, YOLOv8 (with course-to-fine block), custom dataset development, OpenCV, and Face Recognition, with models trained on over 3000+ images to ensure robust performance in diverse environments.

OTT Media Analytics Dashboard Nov 2023 – Dec 2023
• Built an end-to-end Power BI dashboard using a media platform dataset to analyze user engagement, genre popularity, and subscription trends across platforms like Netflix and Amazon Prime.
• Cleaned and transformed data using Power Query; developed calculated metrics in DAX for key KPIs (viewership, platform growth, highest-rated content).
• Designed visuals including bar charts (content popularity), line charts (subscription trends), cards (key metrics), treemaps (genre distribution), and doughnut charts (subscription plan share).
• Enabled interactive filtering via slicers for platform, genre, region, and year, enhancing data exploration and stakeholder insights.

AI-driven precision agriculture and crop management system Sep 2023
• **Innovative Solutions:** Experienced in developing advanced agricultural solutions using AI and data analytics, resulting in a 20% increase in crop yield accuracy.
• **Empowering Farmers:** Provided precise resource allocation and sustainable farming recommendations to over 500 farmers, improving resource efficiency by 30%.
• **Eco-Friendly Practices:** Leveraged technology to secure food production and promote environmentally friendly practices, reducing chemical usage by 25% and water consumption by 15%.
Technical Skills: Python programming, Data Science libraries: (Pandas, NumPy, Matplotlib), Seaborn for machine learning, data visualization and analysis, Decision Tree, K-fold cross Validation.

KEY COURSES TAKEN

Data Structure, Algorithms, RDBMS, Machine Learning, Artificial Intelligence, Operating System, OOPs, Computer Network, Fundamental of Data Science.

SKILLS

• Programming: Python, C/C++, HTML, CSS, SQL.

• Frameworks/Technologies: TensorFlow, Power BI, Power Query, DAX, Matplotlib, Scikit-learn, Seaborn, MS office, Angular, OpenCV, YOLOv8.

• Fields: ML, IoT, Data Management, Prompt Engineering, DSA.

AWARDS

2nd in Project expo Nov 2024
organized by Department of CSE-AIML , MUJ

Silver Elite Badge in NPTEL Design and Analysis of Algorithms Sep 2024

1st in Im-prompt-O Hackathon Sep 2023
(48hrs Hackathon) by MUJ ACM Chapter