

# Gayal C Ashok AI/ML Data Scientist

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## Professional Summary

Results-driven AI/ML Engineer with expertise in developing end-to-end machine learning systems and production-ready AI solutions. Specialized in Computer Vision (YOLO), Generative AI integration, and Predictive Analytics, with a proven track record of building high-accuracy models (86–96%) that deliver measurable business impact, including **\$1M+ in cost savings** and **20%+ efficiency improvements**. Passionate about leveraging cutting-edge AI technologies to solve real-world problems and drive data-informed decision-making.

## Technical Skills

- **Generative AI & NLP:** OpenAI API Integration, Prompt Engineering, Explainable AI, Natural Language Processing
- **Programming & ML:** Python, SQL, TensorFlow, PyTorch, Scikit-learn, OpenCV, YOLO, Pandas, NumPy, Object Detection, Image Processing, RoboFlow
- **Data Visualization & Deployment:** Tableau, Power BI, Streamlit, FastAPI, Docker, Git, AWS, GCP
- **Data Engineering:** PySpark, Hadoop, Data Cleaning, Feature Engineering, Statistical Analysis

## Soft Skills

Strong Problem-Solving Skills, Constructive Feedback, Collaboration Skills, Attention to Detail, Accuracy, Stakeholder Communication, Cross-Functional Teamwork

## Work Experience

### Data Scientist Intern | InnoDatatics | March 2024 – November 2024

- Enhanced a YOLO-based defect detection model, improving accuracy from **89% to 94%** and reducing system downtime by **15%**
- Engineered optimized data pipelines using PySpark and SQL, achieving **30% faster data processing**
- **Developed an interactive Streamlit dashboard for real-time model performance monitoring, enabling stakeholders to visualize defect trends and make data-driven decisions instantly**

## Projects

### Gen AI-Powered Credit Risk Prediction System | Python, Scikit-learn, OpenAI API, Streamlit

- Built an end-to-end credit risk prediction system achieving **86% accuracy**, integrated with GenAI for explainable AI outputs
- Developed a Streamlit dashboard for real-time risk assessment, enabling actionable insights for financial decision-making

### Automated Syringes Counting System | Python, YOLOv8, TensorFlow, Streamlit

- Designed a computer vision system with **96% object detection accuracy**, reducing manual counting errors by **15%**
- Deployed via a scalable Streamlit interface, saving an estimated **\$1M/year** in operational costs

### Solar Power Generation Prediction | Python, SVM, Scikit-learn, Streamlit

- Developed a predictive maintenance model with **96.55% accuracy** using SVM and GridSearchCV optimization
- Reduced system downtime by **20%** and increased energy output by **10%** through proactive fault detection

## Education

### PGDM in AI (Remote) | State University of New York (SUNY) | 2024

Scholarship recipient: NEF Appuji Award (USA) & 360DigiTMG (India)

### BSc Computer Science | Kannur University | 2023

## Certifications

- GenAI Powered Data Analytics Job Simulation | Tata Group | 2026
- AI & Deep Learning (TensorFlow/PyTorch) | 360DigiTMG | 2024
- Gold Certificate (Data Science & Python Fundamentals) | NASSCOM | 2024
- Data Visualization (Tableau & Power BI) | 360DigiTMG | 2023
- SQL & Python Programming | 360DigiTMG | 2023