

# Kevin Odhiambo

Data Scientist

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## Profile

Data Scientist specializing in Machine Learning, Predictive Analytics, and AI-driven solutions. Experienced in developing scalable data models that improve efficiency and decision-making across AgriTech, FinTech, and AI Research. Proven track record in optimizing crop yield forecasts (+25%), enhancing pest detection (+17%), and automating analytics pipelines (-60% processing time). Passionate about leveraging AI to create sustainable, data-driven impact.

## Professional Experience

2023/01 – present  
Nairobi, Kenya

### Lead Data Scientist

*Lima Labs Ltd*

- **Crop Yield Prediction & Forecasting:** Built **TensorFlow & YOLOv8** models, increasing yield prediction accuracy by **26%**, enabling better resource allocation for **10,000+ farmers**.
- **Pest & Disease Detection:** Optimized models using **transfer learning**, boosting detection accuracy from **75% to 92%**, reducing farm losses by **17%**.
- **Automated Data Pipelines:** Designed **custom ETL processes**, reducing preprocessing time by **60%**, significantly improving data quality.
- **Predictive Analytics for Decision Making:** Developed **XGBoost & LightGBM** models, leading to **80% improved client insights** through data visualization in **Tableau & Plotly**.
- **Weather Impact Analysis:** Created a **multivariate regression model**, reducing weather-related crop losses by **20%**.
- **A/B Testing for Agricultural Interventions:** Applied **Bayesian modeling**, optimizing interventions that **increased crop yields by 18%**.
- **Dashboard Development:** Built a **Flask-based internal dashboard**, improving real-time farm-specific reporting & decision-making.

2024/02 – 2024/11

### Consultant Data Scientist – Loan Repayment Prediction

*One Acre Fund*

- Developed an **ML-powered risk assessment model** to predict loan repayment behavior, targeting a **98% repayment rate**.
- Built **XGBoost & Random Forest models**, improving repayment prediction accuracy to **87.3% (R<sup>2</sup> score)**.
- Engineered **key predictive features** (deposit\_ratio, nominal\_contract\_value, repayment\_ratio), increasing early repayment identification by **55.9%**.
- Applied **Bayesian modeling & A/B testing**, reducing **default rates by 32%**.
- Designed an **automated loan risk scoring system**, enabling **real-time client risk assessment** for lenders.
- Conducted **geospatial & demographic analysis**, identifying high-risk loan regions to optimize lending strategies.
- Built **visual analytics dashboards (Tableau, Plotly)**, improving loan officers' decision-making efficiency by **75%**.

**Tech Stack:** Python, XGBoost, Random Forest, SQL, Tableau, Bayesian Modeling, Cloud Deployment (AWS/GCP), Flask

2022/01 – 2022/11  
Nairobi, Kenya

### Data Scientist

*Dascot Ltd*

- Developed an **ML model for soil composition analysis & fertilizer recommendations**.

- Created **custom R functions** for processing & manipulating field shapefiles, streamlining geospatial analysis.
- Implemented **CRISP-DM methodology**, improving project clarity & stakeholder communication.

## Skills

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- **Data Science & AI:** Machine Learning (TensorFlow, PyTorch, XGBoost, LightGBM), Predictive Analytics, Deep Learning, Computer Vision (YOLOv8, CNN), Time Series Forecasting (LSTM, ARIMA).
- **Big Data & Cloud:** Cloud Computing (AWS, GCP – BigQuery, S3, EC2), Data Engineering (ETL Pipelines, Spark, Kafka).
- **Programming & Data Analysis:** Python, R, SQL, Feature Engineering, Data Visualization (Tableau, Power BI, Plotly).
- **Software & Deployment:** API Development (FastAPI, Flask), MLOps & DevOps (Docker, Kubernetes, CI/CD).

## Education

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2021/12 – 2022/06

### Data Science

*Moringa School*

- Business Intelligence
- Database Management
- Artificial Intelligence (AI)
- Mathematics
- Programming Languages: Python, R
- Machine Learning
- Data Visualization: PowerBi, Tableau

2016 – 2020

### Biostatistics

*Jomo Kenyatta University of Agriculture and Technology*

- Statistics and Probability
- Data Mining
- Data Visualization
- Ethics and Privacy

## Projects

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### Leaf Disease Classification using TensorFlow and FastAPI [🔗](#)

*Early leaf disease detection*

- Developed an end-to-end solution for crop leaf disease detection using computer vision and deep learning
- Implemented a CNN model with TensorFlow, achieving 95% accuracy in classifying healthy leaves, early blight, and late blight
- Built a RESTful API using FastAPI for seamless model integration
- Created an intuitive user interface with ReactJS for easy image upload and result visualization
- Deployed the system on AWS, ensuring scalability and high availability
- Reduced manual inspection time by 70% and improved early disease detection by 40%

Tech stack: Python, TensorFlow, FastAPI, ReactJS, AWS, Docker