

BYRON ODHIAMBO
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PROFESSIONAL SUMMARY

Highly skilled data specialist and software engineer with 5+ years of experience in software development, data management, statistical analysis, and machine learning. Currently contributing to livestock genetic data management systems at ILRI with expertise in developing solutions across healthcare research, livestock genetics, and medical technology sectors. Proven track record of gathering, integrating, and analyzing complex datasets while maintaining data integrity and security. Adept at implementing data governance policies and QA protocols to ensure data quality. Strong communicator able to bridge gaps between technical and non-technical stakeholders.

EDUCATION

Bachelor of Business Information Technology (BBIT) - South Eastern Kenya University 2021

CERTIFICATIONS

- **Applied Data Science Lab** - WorldQuant University (May 2025)
- **Good Clinical Practice (GCP)** - CITI Program (November 2022)
- **Google Digital Skills for Africa** - Google
- **Humanities Responsible Conduct of Research** – CITI Program

TECHNICAL SKILLS & COMPETENCIES

- **Programming Languages:** Python, JavaScript, Dart (Flutter)
- **Database Management:** MySQL, SQL Server, Database Design, SQL Programming
- **Data Analysis:** Statistical Analysis, Data Visualization, Matplotlib, Seaborn
- **Machine Learning:** PyTorch, Deep Learning, Neural Networks
- **Web Development:** HTML, CSS, JavaScript, Django, REST APIs
- **Mobile Development:** Flutter, Mobile App Architecture
- **DevOps:** Docker, GitHub, Version Control
- **Data Management:** Data Integration, Data Cleaning, ETL Processes, Data Quality Assurance
- **Data Governance:** Data Protection Frameworks, Privacy Compliance, Information Security Policies
- **Tools:** ONA/ODK, FastAPI, Linux
- **Security:** Data Security, Authentication, Encryption, Cybersecurity Best Practices
- **Project Management:** Agile Methodologies, SDLC, Requirements Gathering, UAT, Stakeholder Management

PROFESSIONAL EXPERIENCE

Data Specialist

International Livestock Research Institute (ILRI) | Nairobi, Kenya | *November 2024 - Present*

- Contribute to livestock genetic data management systems (collation, processing, and storage) for the AADGG project
- Develop and support data capture tools and systems while maintaining data integrity and security
- Write procedures and software to import/export data from/to appropriate database systems
- Implement and monitor Quality Assurance (QA) protocols including remote back-up systems
- Respond to ICT support requests from field agents in a timely manner
- Participate in code reviews to ensure high code quality and adherence to standards
- Keep up-to-date with open-source software and tools for data collection, management, storage, and sharing
- Write clean, scalable, and well-documented code

Key Achievement

- Created a datalake system that helped the organization integrate new incoming datasets efficiently

Data Research Scientist

Kenya Medical Research Institute (KEMRI) | Kisumu, Kenya | *February 2022 - October 2024*

- Gathered and integrated data from diverse sources including databases, spreadsheets, and APIs
- Conducted statistical analysis using tools like Matplotlib, Seaborn, and Microsoft Excel
- Ensured data integrity and accuracy during collection and integration processes
- Established data governance policies to maintain data quality, security, and privacy
- Implemented data security measures to protect sensitive health information
- Collaborated with cross-functional teams including IT professionals, data engineers, and analysts
- Provided guidance and training to non-technical team members on data-related concepts and tools

Key Achievement

- Implemented a data quality control mechanism that reduced the amount of time taken to do data cleaning significantly.

Software Engineer

Flapmax | Remote (Texas, United States) | *June 2021 - February 2022*

- Collaborated with medical experts to develop a brain tumor detection system
- Designed and implemented deep learning models using PyTorch for tumor detection and segmentation
- Preprocessed medical imaging data using NumPy and OpenCV
- Integrated PyTorch models with OpenFL for federated learning scenarios
- Developed APIs using FastAPI for model inference in production environments
- Containerized application components using Docker for portability and scalability
- Documented development processes, model architectures, and deployment procedures

Key Achievement

- Created a model using OpenFL that adhered to data privacy policies required by GDPR.

Junior Mobile App Developer

Wise and Agile Solutions Limited | Nairobi, Kenya | *January 2021 - May 2021*

- Collaborated with stakeholders to develop an HR mobile application using Flutter
- Designed data models and database schemas for storing HR-related information securely
- Implemented secure authentication mechanisms and data encryption for user protection
- Integrated mobile app with backend APIs using REST protocols
- Created consistent and intuitive user interfaces based on approved prototypes

Key Achievement

- Prototyped the user experience which increased app usage significantly.

Freelance Software Engineer

Upwork | Nairobi, Kenya | *December 2019 - January 2021*

- Developed custom software solutions for various clients
- Created websites and web applications using HTML, CSS, JavaScript, and Django

PROJECTS

Edugem AI

June 2022 - Present

- Created an app delivering personalized learning experiences to students
- Technologies: AI, Mobile Development

Halo Kenya Website

April 2023 - September 2023

- Built a website for Halo Kenya using HTML, CSS, JavaScript, and Django
- Focused on solutions to eradicate poverty and improve education in LMIC regions

VOLUNTEER EXPERIENCE

Data Scientist

Kenya Medical Research Institute (KEMRI)

April 2018 - November 2018

- Learned data preprocessing, cleaning, and presentation techniques
- Gained foundational experience in healthcare data management

LANGUAGES

- **English:** Proficient
- **Swahili:** Proficient
- **French:** Basic

SOFT SKILLS

- Problem-solving and analytical thinking
- Communication and presentation
- Project management and leadership
- Team collaboration and stakeholder management
- Adaptability and continuous learning
- Process design and business process improvement

REFERENCES

Name: Billy Ogwel

Position: Data Manager

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Name: Umara Marjorie

Position: Data Specialist

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Name: Kenneth Ojoro

Position: Human Resource Manager

Organization: All Saints Cathedral

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