

BYRON ORWA

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PROFILE SUMMARY

Highly skilled Software Developer with a robust background in data management, machine learning, and mobile application development. Currently serving as a Data Specialist at the Kenya Medical Research Institute (KEMRI), I have a proven track record of integrating complex datasets, conducting statistical analyses, and developing innovative solutions to support global health initiatives. Adept at using programming languages such as Python and JavaScript, and experienced with frameworks and tools like Flutter, PyTorch, FastAPI, and Docker. I am passionate about leveraging technology to drive impactful change and enhance healthcare outcomes.

KEY COMPETENCIES

Programming languages	Machine learning	Strong presentation skills	Team leadership
Frameworks & tools	Statistical analysis	Communication	Mentorship
Data management	Mobile app development	Project management	Change management

PROFESSIONAL EXPERIENCE

DATA GORVENANCE SPECIALIST

APR 2022 - PRESENT

KENYA MEDICAL RESEARCH INSTITUTE

Roles

- Gather and integrate data from diverse sources including databases, spreadsheets, and APIs.
- Ensure data integrity and accuracy during the collection and integration processes.
- Conduct statistical analysis using tools like Matplotlib, Seaborn, and Microsoft Excel.
- Establish and maintain data governance policies and procedures to uphold data quality, security, and privacy.
- Implement data security measures to protect sensitive information.
- Collaborate with cross-functional teams including IT professionals, data engineers, and analysts.
- Provide guidance and training to non-technical team members on data-related concepts and tools.

Achievements:

- Successfully integrated multiple complex datasets, improving the quality and accessibility of data for research projects.
- Developed and implemented robust data governance policies, enhancing data security and compliance with regulations.
- Conducted comprehensive statistical analyses that provided critical insights for global health initiatives.

MACHINE LEARNING ENGINEER

MAR 2022 - AUG 2022

FLAPMAX

Roles

- Collaborate with medical experts to gather and preprocess medical imaging data such as MRI and CT scans.
- Design and implement deep learning models using PyTorch for brain tumor detection and segmentation tasks.
- Optimize model performance through experimentation with various network architectures and hyperparameters.
- Evaluate models using metrics such as accuracy, sensitivity, and specificity.
- Integrate trained models with OpenFL for federated learning scenarios.
- Develop APIs for model inference in production environments using FastAPI.
- Containerize application components using Docker for portability and scalability.

Achievements:

- Developed a high-accuracy brain tumor detection system, significantly improving diagnostic capabilities.
- Successfully integrated federated learning protocols, enabling secure collaborative model training across distributed data sources.
- Created and documented comprehensive deployment procedures, facilitating knowledge transfer and future project scalability.

MOBILE APPLICATION DEVELOPER

NOV 2021 - FEB 2022

Wise and Agile Solutions Limited

Roles:

- Collaborate with stakeholders to gather requirements and translate them into mockups and prototypes using Figma.
- Develop mobile applications using Flutter, focusing on user interface design and user experience consistency.
- Implement backend API integrations for functionalities like user authentication and data retrieval.
- Ensure data security through the implementation of encryption and secure authentication mechanisms.
- Document codebase and technical decisions to support onboarding and future maintenance.

Achievements:

- Successfully developed and launched an HR mobile application, enhancing HR processes and user experience.
- Ensured the app's data security, protecting sensitive user information through best practices in encryption and authentication.
- Achieved high user satisfaction ratings for the application's intuitive design and seamless functionality.

EDUCATION

SOUTH EASTERN KENYA UNIVERSITY

Bachelor of Business Information Technology

CERTIFICATION

Good clinical practice (GCP)

Humanities Responsible Conduct of Research

Digital skills for Africa

REFERENCES

AVAILABLE UPON REQUEST