

# Cyprian Tinashe Masvikieni

Data Scientist | Epidemiologist | Public Health Researcher

tynashmasvikieni@gmail.com | github.com/CyprianTinasheMasvikieni | linkedin.com/in/cyprianmasvikieni | cyprianmasvikieni.duckdns.org

## PROFESSIONAL SUMMARY

Data Scientist and Epidemiologist with an MSc from the London School of Hygiene and Tropical Medicine and a BSc in Data Science from the University of Zimbabwe. Specialist in applying machine learning and statistical modelling to real-world public health challenges - from predicting neonatal mortality to forecasting disease outbreaks. Experienced across government, NGO, and academic research settings in Zimbabwe and the UK. Passionate about leveraging data to save lives and strengthen health systems.

## PROFESSIONAL EXPERIENCE

### Data Scientist - SOFAR Fellowship

SOFAR (Saving Our Future at Risk) | 2024 - Present | Remote / Zimbabwe

- Selected for a prestigious global fellowship programme focused on data-driven public health interventions.
- Building predictive models and data pipelines to support outbreak forecasting and community health initiatives.
- Collaborating with international researchers and health ministries across sub-Saharan Africa.

### Research Data Analyst

London School of Hygiene and Tropical Medicine | 2023 - 2024 | London, UK

- Conducted MSc dissertation research on neonatal mortality prediction using machine learning in Zimbabwe.
- Applied Random Forest, XGBoost, and logistic regression models on national DHS survey datasets.
- Achieved AUC of 0.87 identifying high-risk newborns - findings presented at international conference.

### Data Scientist

Ministry of Health and Child Care Zimbabwe | 2022 - 2023 | Harare, Zimbabwe

- Developed disease surveillance dashboards for real-time monitoring of notifiable conditions.
- Built forecasting models for cholera and malaria outbreaks using historical epidemiological data.
- Automated weekly report generation, reducing turnaround time by 60%.

### Data Analyst

Population Services International (PSI) | 2021 - 2022 | Harare, Zimbabwe

- Analysed programme data across HIV, malaria, and family planning verticals for 500,000+ beneficiaries.
- Produced evidence-based reports for USAID and PEPFAR donor reporting requirements.
- Designed Power BI dashboards adopted across five PSI country offices.

### Junior Data Analyst

Zimbabwe National Statistics Agency (ZIMSTAT) | 2020 - 2021 | Harare, Zimbabwe

- Supported national census data processing and statistical analysis.
- Cleaned and validated large population datasets and produced official statistical bulletins.

## EDUCATION

### MSc Epidemiology

London School of Hygiene and Tropical Medicine | 2023 - 2024 | London, UK

- Dissertation: "Predicting neonatal mortality risk using machine learning in Zimbabwe" - Distinction.
- Modules: Advanced Epidemiology, Biostatistics, Health Data Science, Infectious Disease Modelling.
- 2nd Runner-Up, Imperial College London AI for Health Competition 2024.

### BSc Data Science and Systems

University of Zimbabwe | 2019 - 2023 | Harare, Zimbabwe

- Final Year Project: Outbreak early-warning system using LSTM neural networks on Zimbabwe DHIS2 data.
- Dean's List - graduated with Honours (First Class).

## TECHNICAL SKILLS

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**Programming:** Python (pandas, scikit-learn, TensorFlow, statsmodels), R, SQL, JavaScript  
**Machine Learning:** Random Forest, XGBoost, LSTM, Logistic Regression, Survival Analysis  
**Epidemiology:** Disease Surveillance, Outbreak Investigation, GIS Mapping, DHS/DHIS2 Data  
**Data Engineering:** ETL Pipelines, PostgreSQL, MySQL, REST APIs, Flask, React  
**Visualisation:** Power BI, Tableau, Matplotlib, Plotly, ggplot2  
**Tools:** Git, Docker, Linux, Oracle Cloud, Nginx, Certbot, SPSS, Stata

## RESEARCH & CONFERENCE PRESENTATIONS

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- Masviken CT et al. (2024). Machine learning for neonatal mortality prediction in Zimbabwe. Presented at the LSHTM Student Research Symposium, London.
- Masviken CT (2024). Early warning systems for cholera outbreaks using LSTM networks. Zimbabwe Public Health Conference, Harare.
- Masviken CT (2023). Data-driven approaches to improving maternal and child health outcomes in low-resource settings. PSI Global Research Forum.
- Masviken CT (2023). Leveraging national DHIS2 data for real-time disease surveillance. Africa Health Analytics Summit.

## CERTIFICATIONS

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<b>IBM Data Science Professional Certificate</b>	<i>IBM / Coursera</i>	2023
<b>Deep Learning Specialization</b>	<i>DeepLearning.AI / Coursera</i>	2023
<b>Applied Epidemiology</b>	<i>CDC / Coursera</i>	2022
<b>Data Analysis with Python</b>	<i>freeCodeCamp</i>	2022

## LANGUAGES & INTERESTS

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Languages: **English (Fluent) | Shona (Native)**  
Interests: Global Health Equity | AI for Social Good | Science Communication | Football