# ADDISI NICHOLAS HISRICH

## Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana

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## EDUCATION

Kwame Nkrumah University of Science and Technology (KNUST)  **Sept 2025**
Doctor of Veterinary Medicine
**Thesis Advisor:** Prof. Benjamin Emikpe
**Relevant Courses**: Epidemiology, Virology, Pathology, Statistics, Algebra, Immunology

## RESEARCH EXPERIENCE

### Undergraduate Final Year Thesis Project  **Jan-Sept 2025**

- **Principal Investigator:** Prof. Benjamin Emikpe
  Project: Comparative Seroprevalence of *Leptospira spp* in Hunting Dogs: A Study of Kumasi and Tamale
  • I collected and tested blood samples from hunting dogs using ELISA to detect antibodies against *Leptospira spp*
  • I conducted statistical analysis with SPSS to compare seroprevalence rates between Kumasi and Tamale
  • I evaluated potential zoonotic risks and contributed to recommendations for regional disease surveillance

### Research Laboratory Assistant (Intern), Kumasi Veterinary Laboratory, Kumasi  **Oct-Nov 2023**

- **Principal Investigator:** Dr. Patrick Amponsah
  Project: Microscopic Identification of Gastrointestinal Parasites in Cattle through Fecal Floatation
  • I collected, labelled and prepared fecal samples from cattle
  • I conducted fecal flotation and microscopic examination to identify parasites
  • I supported veterinarians in interpreting lab results and making clinical decisions

## TECHNICAL PROJECTS

### Diabetes Prediction Web App

- Developed a Streamlit web app using XGBoost to predict diabetes risk based on health data, featuring preprocessing, class imbalance handling and model optimization
  • Tools: Python, Scikit-learn, XGBoost, GitHub, Matplotlib, Seaborn, Streamlit
  • GitHub Link: https://github.com/Hisrich/Diabetes_ML_Model

### Pet Adoption Predictor

- Used XGBoost to predict pet adoption likelihood using a Kaggle dataset. Achieved 78% accuracy and visualized insights in Power BI
  • Tools: Python, Scikit-learn, XGBoost, Power BI, GitHub
  • GitHub Link: https://github.com/Hisrich/Pet_Prediction_Model

### Veterinary Case File Web App

- Built a web application for recording pet and owner details during clinic visits
  • Tools: Python, Flask, HTML, CSS, JavaScript, MySQL, Git
  • GitHub Link: https://github.com/Hisrich/Vet-Case-Webapp

## WORK EXPERIENCE

### Clinical Veterinary (Intern), KNUST Veterinary Teaching Hospital, Kumasi  **Oct-Dec 2024**

• I assisted in diagnosing and treating small animals (vaccination, deworming, wound care)

- I monitored patient vitals and updated clinical records
- I administered medications and collected blood, fecal and urine samples

**Research Laboratory Assistant (Intern), Kumasi Veterinary Laboratory, Kumasi**          **Oct-Nov 2023**
- I collected, labelled and prepared biological samples for diagnostic testing
- I conducted fecal flotation and microscopic examination to identify parasites
- I supported veterinarians in interpreting lab results and making clinical decisions

**Backend Development (Intern), InternPulse, Remote**          **Jan-Mar 2025**
- I developed Pedmonie – a secured and seamless payment webapp alongside other interns
- I developed a payment gateway API using Flask, integrating Paystack for transactions
- I created comprehensive API documentation, enhancing usability and integration

## CERTIFICATIONS & COURSES

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|---|---|
| Google Advanced Data Analytics – Coursera | Mar 2025 |
| Intermediate Machine Learning – Kaggle | Nov 2024 |
| Communication for Veterinary Practice – Livisto Group GmbH | Oct 2024 |
| Infectious Disease Transmission Models for Decision-Makers – Coursera | Oct 2024 |
| Introduction to Clinical Research – Global Health Network | Oct 2024 |
| Python Programming – Slightly Techie School | Sep 2024 |

## CONFERENCES AND WORKSHOPS ATTENDED

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|---|---|
| Harnessing Generative AI for Healthcare Innovations | June 2025 |
| Cracking the Climate Change Code | May 2024 |

## LEADERSHIP/VOLUNTEERING

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| Anti-Rabies Awareness Campaign | April 2025 |
| COVID-19 Ambassador, Swedru Municipal Hospital | May-Oct 2020 |

## SKILLS

- **Programming:** Python, SQL
- **ML Libraries:** Scikit-learn, XGBoost, TensorFlow, PyTorch, Keras, Pandas, NumPy
- **Laboratory Skills:** ELISA, Light Microscopy, Microbial culturing, Biochemical assay
- **Data Analysis & Visualization:** SPSS, Excel, Power BI, Matplotlib
- **Tools:** Git, VS Code, Jupyter, Flask, Django, Telebot
- **Communication:** Strong written and oral presentation skills

**PROFICIENT LANGUAGES:** English, Fante, Twi