





# Allan Vikiru

Strathmore University · Nairobi, Kenya

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## Education

### Strathmore University

MSc. Information Technology (Business Intelligence & Data Analytics Option) [Grade: Pass] June 2022 – June 2024

- Masters Thesis: A Predictive Model for Determining Vegetable-Derived Macronutrients for a Diabetic Patient under supervision of Professor Vincent Omwenga.

BSc. Informatics & Computer Science (Grade: First Class Honours)

March 2017 – September 2021

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## Publications

Ayankoso, S., Wang, Z., Shi, D., Yang, W., **Vikiru, A.**, Kamau, S., Muchiri, H., & Gu, F. (2024). Development of Long-Range, Low-Powered and Smart IoT Device for Detecting Illegal Logging in Forests. *Journal of Dynamics, Monitoring and Diagnostics*. <https://doi.org/10.37965/jdmd.2024.550>

Simiyu, D., **Vikiru, A.**, Muchiri, H., Gu, F., & Butime, J. (2024). A Chainsaw-Sound Recognition Model for Detecting Illegal Logging Activities in Forests. In A. D. Ball, H. Ouyang, J. K. Sinha, & Z. Wang (Eds.), *Proceedings of the UNified Conference of DAMAS, IncoME and TEPEM Conferences (UNified 2023)* (pp. 797–806). Springer Nature Switzerland. [https://doi.org/10.1007/978-3-031-49421-5\\_65](https://doi.org/10.1007/978-3-031-49421-5_65)

**Vikiru, A.**, Muiruri, M., & Ateya, I. (2023). An Overview on Cloud Distributed Databases for Business Environments (arXiv:2301.10673). arXiv. <https://doi.org/10.48550/arXiv.2301.10673>

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## Conferences

### Presented

- Workshop presentation on *Programming for IoT using Scratch on Raspberry Pi 400* for the Fundamentals of Raspberry Pi workshop held at Strathmore University on 10<sup>th</sup> November 2023.
- Vikiru, A., & Khakata, E. (2023). *A Wearable Sensor System to Detect the Risk of Fireground Injuries among Firefighters*. Paper presented to 5<sup>th</sup> International Symposium on Advanced Electrical and Communication Technologies, Casablanca, 15<sup>th</sup> March – 17<sup>th</sup> March.
- Vikiru, A., & Khakata, E. (2021). *Detecting the Risk of Fireground Injuries among Firefighters using IoT*. Paper presented to 6<sup>th</sup> Strathmore International Mathematics Conference, Nairobi, 28<sup>th</sup> June -2<sup>nd</sup> July.

### Organised

- Aug 2024: *Build an Open Source Dosimeter*, held at Strathmore University
- July 2023 - September 2024: *Curbing Illegal Logging Patterns using Sound-Based Detection Techniques*, as research project administrator for meetings and field visits.
- Nov 2023: *Fundamentals of Raspberry Pi 400*, held at Strathmore University

### Attended

- Sept 2024: 5<sup>th</sup> *International Conference on Smart Sensors and Application*, held by Universiti Teknologi Malaysia (UTM) - Penang, Malaysia.
  - Jan 2024: *Innovation Summit 2024*, held by Carnegie Mellon University Africa - Kigali, Rwanda.
  - June 2023: *International Summer School in Cyber Security and Digital Forensics* held by Brno University of Technology - Brno, Czech Republic
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## Teaching Experience

2024: **Artificial Intelligence Concepts** - Prepared and delivered course content and graded assessments for undergraduate students in Business Information Technology.

2024: **Information Security, Governance and the Cloud** - Prepared and delivered course content and graded assessments for undergraduate students in Statistics and Data Science.

2022-2024: **Introduction to Programming** - Delivered practical content and graded assessments as a teaching assistant for undergraduate students in Business Information Technology, Computer Networks and Cybersecurity, Statistics and Data Science and Electronics and Electrical Engineering.

2023-2024: **Information Systems Project** (Challenge-Based Learning Methodology) - Supervised projects for undergraduate students in Business Information Technology.

2023-2024: **Information Systems Project** (System Development Methodology) - Supervised projects for undergraduate and diploma students in Business Information Technology.