

Marconi Lab@Mak Internship Opportunities

1. The Marconi Research and Innovations Laboratory at Makerere University, in collaboration with Sleepiz AG, Zurich is offering an internship opportunity at the intersection of data science and sleep insights. Calling 2nd or 3rd-year undergraduate students at Makerere University with a computing and data science background to perform exploratory data analysis on audio recordings of sleep data.

for more information on this opportunity and how to apply: <https://marconilab.org/careers/5>

Applications close on 5th June 2023.



Internship Opportunity

The Marconi Research and Innovations Lab (Marconi Lab), CEDAT, Makerere University in partnership with Sleepiz AG, Zurich Switzerland, is offering an internship opportunity at the intersection of data science and sleep insights.

In this internship you will:

- Perform exploratory data analysis (EDA) on audio recordings of sleep data
- Develop, evaluate and deploy machine learning models to: distinguish sleep signals from ambient noise; identify events such as coughing, snoring and wheezing; and detect unobserved sleep states and other unknown factors affecting sleep state.

The program is eligible for **2nd** and **3rd** year Makerere university Undergraduate students.

Starting on 18th June - 20th Aug, 2023



Location:
**Makerere University, College of
Engineering Design, Art and Technology
Old Building, Room 171**

Applications close on 5th June, 2023
Apply here :
<https://marconilab.org/careers>

2. The Marconi Research and Innovations Laboratory at Makerere University in collaboration with Nanoleq, Zurich, Switzerland is offering an internship opportunity. During the course of this internship, you will have to develop an understanding of the biological relevance of vital data such as ECG and breathing data and work proactively on the development of the analysis pipeline. Interested 2nd & 3rd year undergraduate Makerere University students are encouraged to apply by 5th June 2023.

For more information and to apply: <https://marconilab.org/careers/7>



The Marconi Research and Innovations Lab (Marconi Lab), CEDAT, Makerere University in partnership with Nanoleq is a Swiss-based startup, is offering an internship opportunity to perform exploratory data analysis.

Tasks:

Identifying patterns in ECG, respiratory and movement data and mapping it to unobserved health states using python and Jupyter notebooks.

Develop an analysis and visualization pipeline for ECG and breathing data.

Investigate how additional information, such as accelerometer and position information can aid in the analysis of vital data.

Detect activities such as speaking, laughing and movement through the

The program is eligible for **2nd** and **3rd** year Makerere university Undergraduate students.

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3. The Marconi Research and Innovations Laboratory at Makerere University in collaboration with the Laboratory of Systems Pharmacology (LSP), Harvard Medical School is offering an internship opportunity.

The goal of the internship is to further develop an imaging pipeline for the automated segmentation and analysis of microscopy images of three melanoma cellular models used to study the emergence of resistance to targeted therapy.

Interested 2nd & 3rd year undergraduate Makerere University students are encouraged to apply by 5th June 2023.

For more information and to apply: <https://marconilab.org/careers/8>



Internship Opportunity

The Marconi Research and Innovations Lab (Marconi Lab), CEDAT, Makerere University in partnership with The Laboratory of Systems Pharmacology (LSP) at the Harvard Medical School (HMS) is offering an internship opportunity to further develop an imaging pipeline for the automated segmentation and analysis of microscopy images of three melanoma cellular models used to study the emergence of resistance to targeted therapy..

Tasks:

During this internship you will:

- Read up and understand the basics of cell signaling and the role of BRAF inhibitors in cancer treatment.
- Starting from an existing preliminary image analysis pipeline, develop a pipeline for robust segmentation of the full cell body from bright field images using segmentation tools such as Stardist and Cellpose.
- Apply this image analysis pipeline to experimental data provided by the LSP to extract single cell features from timelapse movies of cells treated with BRAF inhibitors.
- Perform explorative data analysis on the provided experimental data and visualize the results to identify potential markers of drug resistant cells.

This call is **ONLY** open to **2nd** and **3rd** year Makerere University students who will receive credit for the internship



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