



Barry Callebaut Case Study

Meet the Team



Samuel Gyimah

Data scientist at Ishango

University of Energy and Natural Resources

BSc. Mechanical Engineering



Opanin Adu Agyei

Data scientist at Ishango

KNUST, Ghana

MPhil. Applied Mathematics

BSc. Statistics

As a mathematician, I'm always fascinated by real-world applications of mathematics, and the project with Barry Callebaut provided me with exposure from an engineering standpoint. I've learned a lot of engineering concepts in addition to mathematics.

– Opanin Adu Agyei

The Host Company

Barry Callebaut is the world's leading manufacturer of high-quality chocolate and cocoa products, mastering every step in the value chain from the sourcing of raw materials to the production of the finest chocolates. With more than 175 years of chocolate heritage, the Barry Callebaut Group has an unparalleled blend of expertise in cocoa and chocolate.

Project Brief

To identify inefficiencies in production lines and extract actionable insights from the data provided.





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The Ishango engineers were highly educated in the required subject, and in only a short amount of time, they were able to identify some interesting issues and help improve the data quality of our smart factory initiative. Also, the guidance from the central Ishango team was very well appreciated to make the project a success

Bram Van Genabet

Corporate Digital Innovation
Manager
OSCO Process Development &
Digital

Project Outcome

Development of a non-linear supervised machine learning approach (random forest) to better explain variables affecting productions and detect abnormalities at large scale

Visualisation of time series data to better understand factory processes and operations

About Ishango

Ishango is an innovative social enterprise with a mission to create high-skill data science jobs in Africa. We recognise the potential in the best graduates and nurture their talent in line with business needs. Since our launch in 2021, we have connected budding data scientists from across Africa to projects around the world.



Employment

80% employment rate after fellowship



Diversity

40% of fellows have been women



Mentorship

1100+ hours of mentorship from senior data scientists