



GHANA DATA SCIENCE SUMMIT 2025

# INDABAX GHANA

**June 18 - 20, 2025**

*From Skills to Impact; Empowering  
Ghana's Data Science Revolution*



Ashesi University

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# Welcome Address

Aseda Addai-Deseh & Dr. Augustine Denteh, IndabaX Ghana 2024 Conference Chairs

## **Welcome Message from the General Chairs**

Welcome to the Ghana Data Science Summit 2024 (IndabaX Ghana) We are very proud to officially commence IndabaX Ghana 2024 with all of you – you made it! As the largest ever IndabaX Ghana, about 600 people are gathered under the theme, “Unleashing the Potential of AI through Grassroots Engagement” for 3 days of inspiring conversations on Data Science, Machine Learning, and Artificial Intelligence.

We are excited that the Responsible AI Lab at the Kwame Nkrumah University of Science and Technology is hosting this 5th anniversary edition. Kumasi, known as “The Garden City,” is a city rich in history and culture, reminding us of the importance of resilience and innovation in pursuing our goals. In the words of Osagyefo Kwame Nkrumah, “We face neither East nor West; we face forward.” This spirit of leadership drives our efforts at IndabaX Ghana.

## **Reflecting on Our Journey**

Welcome to the Ghana Data Science Summit 2024 (IndabaX Ghana) We are very proud to officially commence IndabaX Ghana 2024 with all of you – you made it! As the largest ever IndabaX Ghana, about 600 people are gathered under the theme, “Unleashing the Potential of AI through Grassroots Engagement” for 3 days of inspiring conversations on Data Science, Machine Learning, and Artificial Intelligence.

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## **What Should You Expect at IndabaXGhana 2025?**

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# Schedule for Day 1

Wednesday June 18, 2025

<b>8:00am - 9:00am</b>	<b>Registration Desk Opens + Mentorship</b> Check-in closes at 9:00am prompt	
<b>9:00am - 9:05am</b>	<b>Opening Remarks</b>	<b>Prof Augustine Denteh</b> Conference Chair
<b>9:05am - 9:25am</b>	<b>Welcome Address</b>	<b>Kwabena Bamfo</b> Head, Ashesi CSIS Department
<b>9:25am - 10:05am</b>	<b>Opening Keynote Address</b> We Better Get This Right: Data Science and the Future of Economic Development	<b>Rob Floyd</b> Director for Innovation & Digital Policy: African Center for Economic Transformation
<b>10:05am - 10:15am</b>	<b>Group Photo</b>	
<b>10:15am - 10:20am</b>	<b>B R E A K</b>	
<b>10:20am - 12:25pm</b>	<b>Tutorial Sessions</b> Python Programming and Machine Learning Track	
	<b>Foundational - Learning Theory:</b> Bridging Math and ML Nutor Hall 115	<b>Emmanuel Aseidu</b> & Joel Osei-Asamoah
	<b>Specialization - Optimisation</b> Techniques for Machine Learning Jackson Hall 115	<b>Jeremiah Ishaya</b> & Toufiq Musah
	<b>Generative AI, Responsible &amp; Ethical AI Track</b>	
	<b>Foundational - NLP Essential</b> Preprocessing Techniques Nutor Hall 216	<b>Clifford Mills &amp; Joy Tari-Bagshaw</b>
	<b>Specialization - Leveraging Large</b> Language Models for Text Generation and Summarization Jackson Hall 116	<b>Nana Sam Yeboah</b> & Audrey Agbeve
<b>12:25pm - 1:55pm</b>	<b>Lunch Break</b>	
<b>1:55pm - 2:55pm</b>	<b>Tutorials Continue with Exercises</b>	
<b>2:55pm - 3:00pm</b>	<b>Switch Rooms</b>	

# Day 1 continued

**3:00pm - 4:30pm**

## Panel Discussion

The AI Paradox: How LLMS Empower and Endanger Society."

**Abigail Annkah, Joycelyn Otchere, Blaise Bayuo & Ohemaa Afriyie Akoto**

**Moderator: Adiza Alhassan**

**4:30pm - 4:55pm**

## Spotlight Presentations (5 Mins Each)

*CNN-Based Accent Similarity Detection Using Masked Spectrogram Reconstruction*

**Amina Salifu**

*Knowledge of AI Use & Prediction of AI Adoption among Selected Residents in the Greater Kumasi Area of Ghana*

**Elvis Mwinspace Sobiesuo**

*A Hybrid Deep Learning-Based Stochastic Bottom-up Framework for Enhancing Electricity Demand Prediction in Rural Electrification*

**Julius Adinkrah**

*WaveNet: Efficient High-Resolution Image Classification Using Wavelet-Domain Inputs*

**Albert Dede**

*From Limited Contexts to Rich Data: Elevating Twi NLP through Diverse and Verified Datasets*

**Jackline Mireku**

**4:55pm - 5:00pm**

## Closing Remarks

# Schedule for Day 2

Thursday June 19, 2025

<b>8:00am - 9:00am</b>	<b>Registration Desk Opens + Mentorship</b> Check-in closes at 9:00am prompt
<b>9:00am - 11:20am</b>	<b>Tutorial Sessions</b> <b>Python Programming and Machine Learning Track</b>
	<b>Foundational - Intro Python</b> Nutor Hall 115
	<b>Eugene Tettey Ayerkain &amp; Rahmat Akintola</b>
	<b>Specialization - Optimisation Techniques for Machine Learning</b> Jackson Hall 115
	<b>Joshua Otis</b>
	<b>Generative AI, Responsible &amp; Ethical AI Track</b>
	<b>Foundational - NLP Fundamentals: Handling Textual Data &amp; Word Embeddings</b> Nutor Hall 216
	<b>Alex Quao &amp; Adobea Essien</b>
	<b>Specialization - Empowering Conversational AI with Fine-Tuned Large Language Models: A Hands-On Guide</b> Jackson Hall 116
<b>11:20am - 11:25am</b>	<b>B R E A K</b>
<b>11:25am - 12:25pm</b>	<b>Tutorial Sessions Continue</b>
<b>12:25pm - 1:55pm</b>	<b>Lunch Break</b>
<b>1:55pm - 2:55pm</b>	<b>Poster Presentations</b>
<b>2:55pm - 3:55pm</b>	<b>Tutorials Continue with Exercises</b>
<b>3:55pm - 4:00pm</b>	<b>Switch Rooms</b>
<b>4:00pm - 6:30pm</b>	<b>Workshops</b>

# Workshop Sessions

There will be **6 sessions** going on concurrently.  
Your Participants' Experience Personnel will show you your room

## AI Sandbox Exercises & Policy Models/Tools for Developing Responsible and Ethical AI Solutions in Economic Policymaking in Africa

King Building Classrooms (Electronic Engineering Lab)

**Speaker:** Blaise Bayuo

## Understanding Multimodal Language Modeling: Fusing Vision into Language

Jackson Hall 116

**Speaker:** Nana Sam Yeboah ,Solomon Eshun, Mohammed Nurudeen Alhassan  
Osman Tanko & Donald Kwame Asiedu

## Making Sense of Data: A Beginner's Guide to Statistical Inference with Python

Nutor Hall 115

**Organizers:** Isaac Jim Awuah, David Ampofo Quarcoo  
**Speakers:** Elvis Kwabena Asare Nkrumah, Wonder Komla Bediako

# Workshop Sessions

There will be **6 sessions** going on concurrently.  
Your Participants' Experience Personnel will show you your room

## Practical Computer Vision for Product Development

Nutor Hall 216

**Speaker:** Ebunoluwa Adebanjo, Ruquaiya Shuaibu & William Jephthe Mayila Mve

## Conversational AI Made Simple: Developing Intelligent Chatbots with Python, Hugging Face, and Streamlit

Jackson Hall 115

**Speaker:** Jeremy Acquah, Enapa Asamoah

## Advancing Technical Readiness for Tuberculosis Data Verification on the Global Digital Health Certification Network in Ghana: Proof of Concept

King Building classrooms (Science Lab)

**Speakers:** Monica Amponsa, Gideon Sarpong Nyamekye & Ben Aikins

# Schedule for Day 3

Friday June 20, 2025

<b>8:00am - 9:00am</b>	<b>Registration Desk Opens + Mentorship</b> Check-in closes at 9:00am prompt	
<b>9:00am - 9:10am</b>	<b>Opening Remarks</b>	
<b>9:10am - 9:50am</b>	<b>Keynote Address</b> From Skills to Impact; Empowering Ghana's Data Science Revolution	<b>Ing. Patricia Obo-Nai</b> Chief Executive Officer, Telecel Ghana
<b>9:50am - 10:50am</b>	<b>Tutorial Sessions</b> Python Programming and Machine Learning Track	
	<b>Foundational - Introduction to models for regression and classification</b> Nutor Hall 115	<b>Precious Darkwa &amp; Gertrude Abagale</b>
	<b>Specialization - Building Deep Generative Models for Medical Image Synthesis</b> Jackson Hall 115	<b>Joshua Tettey &amp; Erica Akanko</b>
	<b>Generative AI, Responsible &amp; Ethical AI Track</b>	
	<b>Foundational - Foundational NLP: Pretraining and Key Concepts</b> Nutor Hall 216	<b>Nana Kwame &amp; Adwoa Bremang</b>
	<b>Specialization - Designing Fair Machine Learning Algorithms</b> Jackson Hall 116	<b>Angel Gabriel Addaamabiik &amp; Deborah D Kanubala</b>
<b>10:50am - 11:00am</b>	B      R      E      A      K	
<b>11:00am - 12:00pm</b>	<b>Tutorial Sessions Continue</b>	
<b>12:00pm - 1:30pm</b>	<b>Lunch Break</b>	
<b>1:30pm - 2:30pm</b>	<b>Tutorials Continue (Hands-on)</b>	
<b>2:30pm - 2:40pm</b>	B      R      E      A      K	

# Day 3 continued

**2:40pm - 3:25pm**

**Talks from Sponsors (Maverick Research,  
MTN Ghana & Ashesi Graduate Admissions**

**3:25pm - 3:40pm**

**Award Presentations**

**3:40pm - 4:00pm**

**Closing Remarks**

# Host Partner



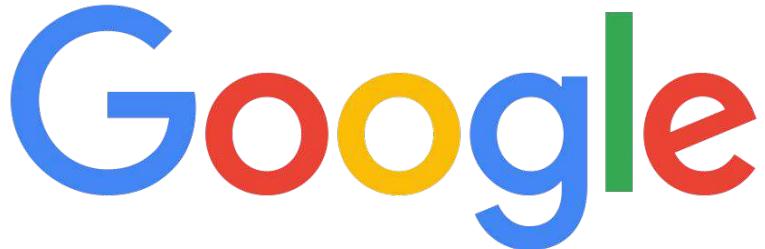
CSIS Department



Ashesi University's Department of Computer Science and Information Systems focuses on educating students to help African societies build, not only consume, high-impact technology. In an increasingly tech-driven world, the ability to respond to technological change and build tech tools will be key skills required to succeed. The Computer Science department at Ashesi helps students build the foundational skills necessary to build life-long careers in tech and information systems management.

# Sponsors & Partners

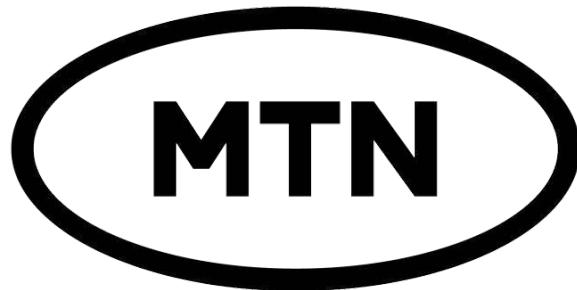
## GYE NYAME CATEGORY



Google's mission is to organize the world's information and make it universally accessible and useful, and we advance that mission every day in incredible new ways. Research across Google provides new ways of looking at old problems and helps transform how we all work and live, and we think the biggest impact comes when everyone in the world can access it. To that end, we use state-of-the-art computer science techniques to solve problems for our users, our customers and the world, making it easier for you to do things every day, whether it's searching for photos of people you love, breaking down language barriers, or helping you get things done with your own personal digital assistant.

# Sponsors & Partners

## SANKOFA CATEGORY



MTN Ghana delivers cutting-edge telecommunications solutions, tailored to the evolving needs of businesses. Through scalable and customizable services, we aim to empower small, medium, and large enterprises, ensuring seamless connectivity, robust security, and exceptional customer support. Some services we provide include Mobile Postpaid, Enterprise Prepaid Services, ICT Converged Services, M2M, Unified Communications, Cloud (Data Centre Collocation, Cloud Solutions & Services), ICT Fixed Data and Digital Services



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## SANKOFA CATEGORY



Telecel Ghana is part of the Telecel Group, a top-tier provider of digital and telecommunications solutions across the African continent. Our goal is to deliver outstanding innovation on a global scale, coupled with highly responsive services. Our customer-centric operations are anchored on fostering connections with the community, private sector, and government.

# Sponsors & Partners

## NYAME NTI CATEGORY



**BLOSSOM  
ACADEMY**

Blossom Academy is fuelling the future of work by providing diverse data talent at scale, bridging the skills gap and equalizing opportunity. Blossom Academy believes the technology skills gap stems from an opportunity gap—talent is equal, but opportunity is not. The commitment is to close this gap by equipping those with the aptitude and drive to become industry-ready data professionals.



NVIDIA is the pioneer of GPU-accelerated computing. We specialize in products and platforms for the large, growing markets of gaming, professional visualization, data center, and automotive. Our creations are loved by the most demanding computer users in the world – gamers, designers, and scientists.



Maverick Research, is at its core, a data company with a goal of telling the African story using organically collected and technologically refined data. Maverick has built systems, processes and proprietary technology to collect data on retail and media industry, analyse and interpret the data with in-house Artificial Intelligence and Machine Learning models in order to provide unparalleled insights into product and competitor performance, customer behavioural patterns, and market trends in the African continent.

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Reinvent The Future!

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## MEDIA PARTNER



Kweku Tech is your go-to source for tech event updates, insightful tech interviews, community engagement and tech events coverage.

# Code of Conduct

1. The Ghana Data Science Summit (IndabaX Ghana) is dedicated to an atmosphere free of any harassment (e.g., verbal, physical, discrimination, abusive conduct, badgering, etc.). While there is no official dress code, we encourage you to use your discretion (e.g. business casual).
2. We expect you to be respectful to all persons during the event (organizers, participants, panelists, volunteers and any other person associated with the Summit). Any behavior that disrupts any session will be grounds for immediate expulsion from Summit.
3. Please keep all communication civil and respectful. Please ask questions respectfully during the Summit, especially during networking events and lunch. Anyone who disrupts any aspect of the Summit will be immediately dismissed.
4. Every effort is being made to ensure a smooth and successful conference. If you have any questions or concerns during the Summit, you must address it patiently with the conference organizers and volunteers who will be appropriately identified with their name tags and attire. Do not take any issue into your own hands.
5. The conference organizers reserve the right to ask anyone who refuses to follow these guidelines to leave the Summit. Our organizers, speakers, volunteers, sponsors and partners have made immense sacrifices to bring this Summit to fruition. We ask for your cooperation in making it a success.

# Enhancing your Conference Experience



**Dress Appropriately:** While there is no strict dress code, we encourage you to use your discretion and dress in business casual attire.

**Timely Arrival and Registration:** To ensure a smooth start, kindly arrive at the Hall between 7:30 - 9:00 AM on the first day, Wednesday, June 18, to complete the registration process. There will also be an optional pre-conference registration on Tuesday, June 17 from 2:00 - 5:00 PM.

**Respect and Courtesy:** We expect all participants, including organizers, speakers, volunteers, and attendees, to treat each other with respect and courtesy throughout the event.

**Harassment-Free Environment:** The GDSS is dedicated to providing an environment free from any form of harassment, whether verbal, physical, or discriminatory. Any disruptive behavior will not be tolerated.

**Familiarize Yourself:** Review the conference program outline in advance to plan your schedule and make the most of the sessions and networking opportunities.

**Engage on Social Media:** Share your GDSS experience on social media using the hashtags #gdss2025 and #indabaxghana, and follow our handles @ghdatascience, Ghana Data Science Summit.

**Secure Your Belongings:** While the conference organizers strive to maintain a safe environment, we recommend that you exercise caution and avoid carrying unnecessary valuables.

**Cooperate with Organizers:** If you have any questions or concerns during the event, please address them patiently with the conference organizers and volunteers, who will be readily available and identifiable.

**Respect Guidelines:** The conference organizers reserve the right to ask anyone who refuses to follow these guidelines to leave the Summit. Your cooperation is essential for the success of this event.



**INDABAX**  
GHANA



# Organizing Committee

Delali Agbenyegah	Steering Committee
Augustine Denteh	Steering Committee
Atsu Daniel Agbenyega	Steering Committee
Naa Lamle Boye	Steering Committee
Joshua Atsu	Programs
Flo bianey Elion Silulu	Programs
Ubaida Abdulai	Programs
Samuel Kwadwo Amedi	Logistics
Linda Davor	Logistics
Nana Kojo Yaah-Nyarko	Logistics
Johnnie Oduro Jnr	Logistics
Amina Salifu	Applications & Selection
Frederick Minta	Applications & Selection



**INDABAX**  
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UNIVERSITY  
CSIS Department

# Organizing Committee

Jude Nyamekye Koomson	Applications & Selection
Frimpong Yeboah Nathaniel	Sponsorship
James Owusu Appiah	Communications
Joseph Sa-Ambo	Communications
Joshua Richardson Owusu	Communications
Julius Boakye	Communications
Celestine Adom-Tetteh	Communications
Afi Kweyakie Blebo	Communications
Adobea Essien	Communications
Kwabena Bamfo	Ashesi CSIS
Oheneba Dade	Ashesi CSIS

# Conference Volunteers

Adama Baba

Eyram Abla Fenu

Kabore SJC

Linda Louisa-Lois Adjoka

Lyse Claudia Irera

Prudence Ufulu Buleya

Salma Awelana Danzuma Nabonadam

Yacine Pouye

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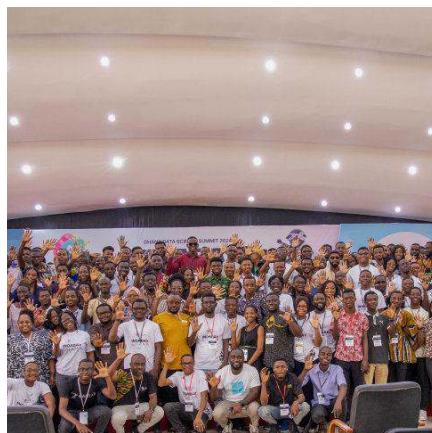
Enoch Tetteh Nartey

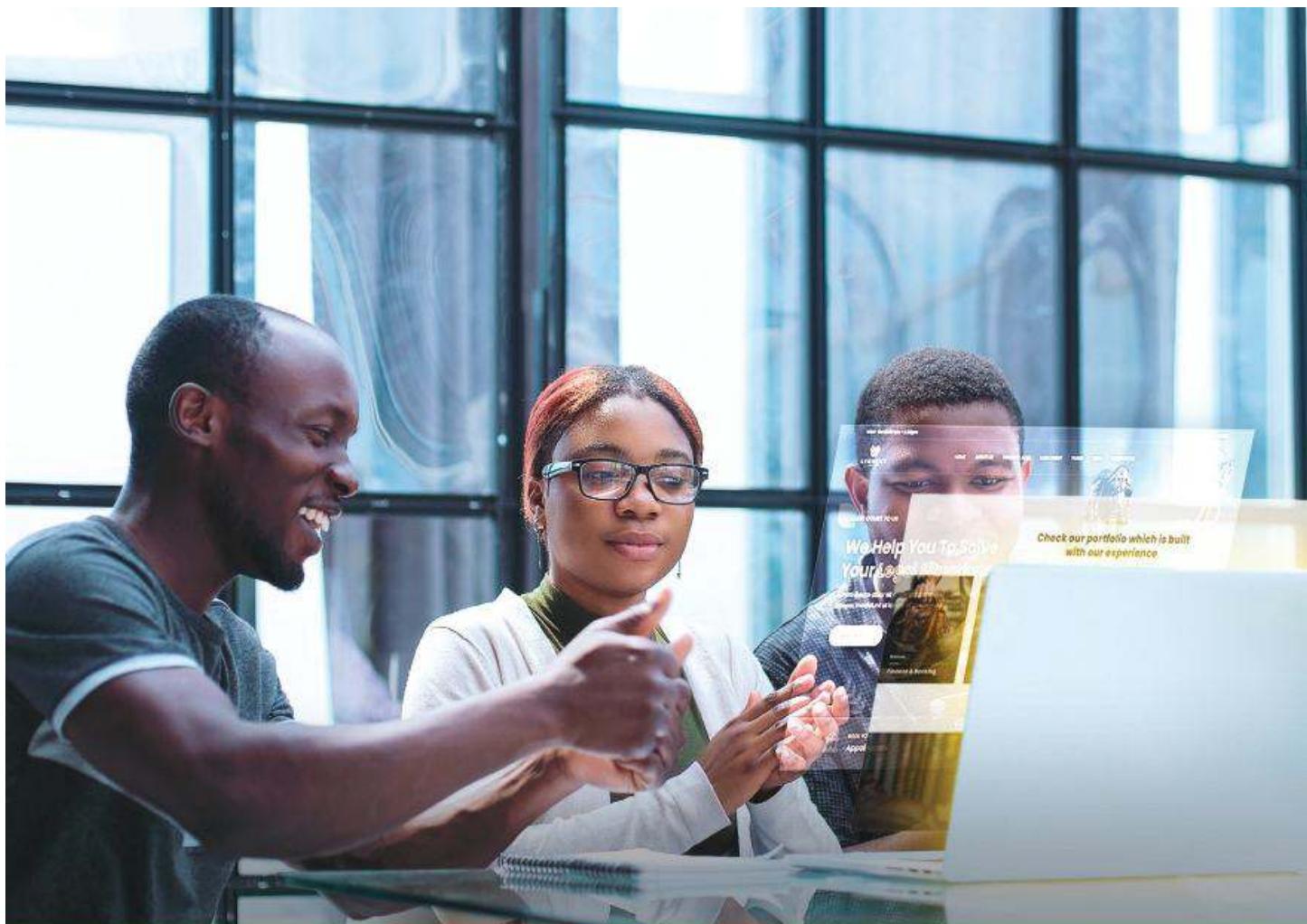
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