

A LOOK BACK AT THE BOTATHON



By Conrad Kabuye

SERIES

Over the last two years, THiNK has organised Botathons at seven universities, involving over 400 students in immersive AI education. These events transcend conventional hackathons, allowing students to acquire practical skills in AI, including chatbot development, retrieval-augmented generation (RAG), and large language models (LLMs), while addressing real-world challenges.



Botathon #7 Jomo Kenyatta University of Agriculture and Technology

In collaboration with JHUB Africa, THiNK participated in the AI Summit 2025 Hackathon at JKUAT. We mentored 15+ AI teams through technical training, project development, and a voice-first RAG systems masterclass. Top teams were nominated by THiNK, and the event wrapped up with a high-energy demo and awards ceremony.



Botathon #8 University of Embu

THiNK empowered 38 students with hands-on training in RAG, including LlamaIndex and Chroma DB. Participants showcased practical projects and gained insights into deploying AI solutions with real-world impact.



Botathon #9 Strathmore University

With students from Kenya, Uganda and India, this event blended technical sessions on RAG, version control, Git, and API documentation.











he Demo Day, hosted at the New Rain Hotel in Juja, gathered students from JKUAT, the University of Embu, and Mama Ngina University, along with THiNK's Community of Practice and AI experts.

The event commenced with an engaging breakfast and live music, followed by an opening address from THiNK Team Lead Brian Omwenga.

Key updates were shared throughout the day,

featuring presentations on the Botathon series by Conrad Kabuye, community infrastructure by Paul Ecil, LLM analytics by Nick Mumero, CAP by Angela Kanyi, and business tools by Aisha Nur. Advisory members—Dr. Faith Njeri, Dr. Jude Mwenda, Mr. Martin Mbaya, Prof. Edward Ombui, and Mr. Andrew Masila—enriched the discussion, showcasing the power of collaboration in community-driven Al initiatives.





Attendees at Community Demo Day 2025

Additional highlights from the Community Demo Day 2025 included vibrant networking sessions that allowed students to connect directly with industry professionals and CoP members. The event fostered meaningful dialogue around ethical AI, local innovation, and the future of communitydriven tech ecosystems. Demonstrations of THiNK tools like the API Library, THiNK Chain, and Data X-Change offered attendees hands-on exposure to the infrastructure powering real-world AI solutions. The presence of diverse voices—from academia, industry, and grassroots innovators reinforced THiNK's commitment to inclusive, collaborative AI development.



Products Showcased

Conformity Assessment Process

A robust safety framework for AI solutions designed to mitigate risks such as bias, misinformation, and unreliable outputs throughout every phase—pre-processing, processing, and post-processing. CAP harmonizes with esteemed international standards (ISO, BSI), the Kenya Code of Practicefor AI (KEBS), and the internal guidelines of THiNK. For further insights, embark on a journey to **www.cap.think.ke.**



THiNKiT: Bot of Bots

An extensible bot network and integration platform for AI solutions with chat or language interfaces. THiNKiT supports secure, sovereign AI deployment and is available as a mobile app and smart speaker.



Business Listing and Business Companion

Business Listing System: Al-powered platform for businesses to register, manage profiles, and boost visibility. Ensures accurate, verified listings for trusted business discovery. <u>www.listing.think.ke</u>.

Business Companion: Al tool for startups offering real-time support on registration, licensing, trends, fraud detection, and smart decision-making—no consultants needed. <u>www.listing.think.ke</u>.

Community Infrastructure

THINK Chain: Blockchain system for verifying digital assets and powering unique THINK IDs. **www.chain.think.ke**.



Community API Library: Local API hub for building trusted, agentic AI solutions. **www.api.think.ke**.

Data X-Change: Secure platform for sharing highquality data for Al. **www.data.think.ke**.

LLM Analytics

Enterprise-grade platform for securing and monitoring RAG systems and AI agents. Features zero-trust security, real-time monitoring, PII protection, and compliance with SOC2, GDPR, HIPAA, and ISO 27001. Turns AI usage data into business insights. <u>www.llm-analytics.think.ke</u>.













Kenyatta University KUESA Symposium Chatbot

HiNK's KUESA Symposium Chatbot, launched at the 7th Students' National Economics Symposium 2025 under the Bot of Bots initiative, enhanced engagement by offering instant access to event schedules, project info (e.g., SmartAgri Systems, EduPay), competition guidelines, and KUESA links.

Introduced by THiNK's Conrad Kabuye, the chatbot also supported membership sign-ups and organizer contact. Key metric: 200+ downloads, signaling strong participant interest.







RESEARCH SPOTLIGHT: The Impact of Audio Compression on Downstream Speech Processing Tasks

udio compression plays a crucial role in efficiently storing and transmitting audio data. However, it can introduce artefacts and distortions that affect the quality of the audio and its suitability for downstream speech processing tasks such as Automatic Speech Recognition (ASR), Text-to-Speech (TTS), Speech-to-Text (STT), and speech-to-speech translation. This report provides a detailed analysis of the impact of audio compression on these tasks based on various metrics and visualizations. **#NLP #ResearchPapers**



Spectral Features



Frequency Content Comparison

