Cherno Basiru Jallow

 LinkedIn | 📱 +220-787-8796 | 🌐 cbjtech.github.io/portfolio/ | ✉ jallowchernobassiru@gmail.com | GitHub

Skills

- Programming & Tools: Python | NumPy | PyTorch | Scikit-learn | OpenCV | Pandas | Matplotlib | Fastai | Git | GitHub | HTML | CSS | JavaScript
- Machine Learning & AI: Machine Learning | Deep Learning | Computer Vision | Convolutional Neural Networks (CNNs) | Transfer Learning | Model Evaluation | Data Preprocessing & Feature Engineering
- Research & Data: Research Methods | Scientific Computing | Data Analysis | Jupyter Notebooks | Technical Writing
- Other Skills: Public Speaking | Technical Communication & Teaching | Project Leadership & Mentorship
- Languages: | English | Fula | Wolof.

Experience

YouTuber   **YouTube**   **01/2023 - Current**

- **CBJtech**, AI/ML Projects, Deep Learning, Coding Tips, Tech Life, Research Journey, Student Motivation, Self-Taught CS

Data Science/AI Intern   **MRC Unit The Gambia at LSHTM**   *Fajara, The Gambia*   **03/2025 - Present**

- Developed a PyTorch-based CNN classifier for cats vs dogs classification, implementing custom dataset handling, data validation, and achieving 80% accuracy on 25K images. Deployed the model on Hugging Face and integrated interpretability tools (Grad-CAM, saliency maps) to visualize model decision-making processes.
- Designed and trained a pneumonia detection model using **Fastai** and **transfer learning** on 5000+ X-ray dataset, helping explore ML's potential in low-resource healthcare diagnostics. Presented project findings and technical insights at **UTG ICT Week 2025**, showcasing real-world AI applications to students, researchers, and professionals.
- Built a complete neural network from scratch in NumPy and python, implementing forward propagation with weighted linear transformations and non-linear activation functions, backpropagation using chain rule for gradient computation, gradient descent optimization with learning rate tuning, and loss function minimization to deepen my mastery of the mathematical foundations underlying modern deep learning architectures.
- Applied **PyTorch** for advanced **computer vision** tasks, gaining hands-on experience with CNN architectures, data preprocessing, and model evaluation.
- Worked under expert supervision to explore scalable ML workflows for scientific research, contributing to real-time discussions around algorithm performance and reproducibility.
- Collaborated in a research-driven environment with biweekly readings and seminars, applying insights to hands-on experiments in computer vision and machine learning.

Lead AI/ML Intern   **OBENTaS GLOBAL**   *Brikama, The Gambia*   **02/2024 – 02/2025**

- Built a **music taste prediction system** using **Python**, **scikit-learn**, and **pandas**, modeling user preferences through supervised learning algorithms.
- Won April 2024 **Best Team Membe**r award.
- Conducted research on the implementation of an **e-learning platform**, focusing on user engagement, accessibility, and digital infrastructure in low-resource settings.
- Collaborated with fellow interns and engineers to integrate AI features into internal tools, while presenting findings and prototypes to executive staff.
- Represented OBENTaS at **The Gambia's Trade Fair 2024**, advertising technical services and engaging with stakeholders to promote local innovation.

ICT Club President | Lead Instructor   **Nusrat High School**   *Serrekunda, The Gambia*   **07/2023 – 07/2024**

- Led **150+** active members, organized inter-class competitions.
- *Raised* **GMD 10k+** *for tech trips, co-founded Coders Hub, and held weekly meetings.*
- Instructed **50+** students weekly on coding fundamentals, web development, MS Office, and GIMP for graphic design.
- Designed and delivered customized lesson plans to improve digital literacy and empower student-led innovation.

Keynote Speaker   **Various Tech Events**   *The Gambia*   **03/2023 - Present**

- Presented on **deepfake technology** at **Google DevFest Banjul 2024**, sharing insights on ethical AI and computer vision applications.
- Delivered keynote and STEM talks at **Nusrat Senior Secondary School**, inspiring 250+ students across clubs and career events.
- Showcased a **pneumonia detection model** built with Fastai at **UTG ICT Week 2025.**

- Regularly invited by tech clubs and institutions to speak on AI, student innovation, and navigating a self-taught tech journey.

Education

Bachelor of Computer Science **University of The Gambia** *Faraba, The Gambia* **03/2025 - 09/2029**

- Major in Computer Science

Publications

- **LOWEL AI:** AI powered system using microscope and sensor data to detect waterborne bacteria in The Gambia. (Self-published, 2024)
- **Computer Vision for Crop Diseases**: Applied CV models to detect and classify diseases in Gambian farms. (Research Preprint, 2024)

Mentorship

- **Student Mentor**: Provided 1:1 support to aspiring tech students, offering guidance on programming, ML fundamentals, and self-taught learning strategies. (2023 – Present)
- **ICT Club Instructor**: Taught coding, web development, and digital skills to 50+ high school students weekly, fostering a culture of tech exploration.

Others

- **Student, Smart Professional College (10/2021 – 07/2024):** Completed IC3 Digital Literacy Certification (Levels 1 & 2) in Computing, Key Applications, and Living Online (Certiport & GMetrix).
- **Self-Taught Programmer, Independent Projects (2021 – 07/2024):** Built web-based tools including a Text-to-Speech generator for English exam practice; began coding in 9th grade.