

Ibra Niang

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Summary

Final-year Computer Science student at the University of Memphis focused on multimodal ML (vision-language models), training pipelines, and efficient inference. Building benchmarks/datasets for agriculture VLMs and iterating end-to-end from data → pretraining → SFT → evaluation → deployment. Advised by Dr. Xiaolei Huang ([lab site](#)).

Skills

ML/AI: Vision-language models, LLM evaluation, alignment/RL, experiment tracking, metrics/telemetry

Tools: Python, PyTorch, C/C++, CUDA/Triton, Git, Linux

Projects

MLRun — Open-source ML experiment tracking platform

GitHub: [ibusnowden/MLRun](#)

- High-performance, open-source ML experiment tracking platform for modern AI workflows.
- Infrastructure for logging metrics, parameters, and artifacts from training runs.
- Built-in support for LLM evaluations, agent tracing, and high-frequency data ingestion.

GhostVis — Vision-language model built on nanochat

GitHub: [ibusnowden/ghost](#)

- Transformed a text-only LLM into a multimodal system that understands both images and text.
- Pipeline includes pretraining/mid-training, vision alignment with CLIP, RL, and slang inference.
- Text architecture improvements with SwiGLU-style blocks and fused Triton kernels.

Experience

JPMorgan Chase & Co. — Software Engineer

May 2025 – Aug 2025

- Developed and launched a full-stack web application for traders using Node.js and Python with real-time functionality.
- Designed data models using internal frameworks to create visual data displays for trading insights.
- Enhanced the UI of a stock price tool to improve usability and user experience.

Research — University of Memphis

Advisor: Dr. Xiaolei Huang

- Building research-grade benchmarks and datasets for agriculture vision-language models.
- Training and evaluating models end-to-end (data, pretraining, SFT, evaluation, deployment).

Education

B.S. Computer Science, University of Memphis

2026

Honors & Activities

- NSF Research Fellow.
- Tennessee Board of Regents nominee.
- Honor Society Scholar.