

# RUTH AKINTUNDE, Ph.D.

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**Agentic AI / LLM Product & Applied Research Leader**

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## SUMMARY

Strategic AI leader with 14 years spanning software engineering, product, and applied ML. Ship **agentic AI** systems and **LLM-powered copilots** in production, integrating assistants with core data workflows and closed-loop feedback. Deep experience fine-tuning **SLMs** for targeted tasks, optimizing for **quality, latency, and cost**, and translating research into scalable product features. 4 granted US patents; conference speaker and cross-functional team lead.

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## CORE SKILLS

**LLM & Agentic Systems:** Task-oriented assistants, orchestration, tool/function calling, prompt & system design, evals & offline metrics, grounding & guardrails, telemetry & observability, Retrieval-Augmented Generation (RAG), Autogen, LangChain & LangGraph, Model Context Protocol (MCP), A2A.

**Model Development:** SLM/LLM fine-tuning, transfer learning, NLP, computer vision, deep learning (CNN/LSTM), classical ML (linear/mixed models, RF, clustering).

**Data & Platforms:** Python (pandas, NumPy, SciPy, scikit-learn, PyTorch, TensorFlow), SAS & SAS Viya, R; NodeJS; Android.

**Product & Delivery:** Road-mapping, requirements, experiment design (A/B), CI/CD for models, stakeholder storytelling, mentoring, cross-functional leadership.

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## EXPERIENCE

**SAS — Generative AI Lead, Machine Learning Development** | Remote | 2021–Present

- **Productized the Information Catalog Copilot:** integrated a hybrid of open-source and enterprise LLMs inside a core data product; engineered seamless interaction with data workflows to boost user productivity and discoverability.
- **Shipped agentic features** that operationalize assistants for real user tasks (retrieval, actions, summarization), with safety reviews and observability.
- **Built closed-loop feedback & evaluation** (telemetry, review, automated tests) to improve answer quality and reduce churn; set quality bars and release gates.
- **Fine-tuned SLMs** to achieve LLM-level utility on constrained compute; authored tuning/eval playbooks adopted by partner teams.
- **IP & Thought leadership:** 4 granted patents (classification, outlier detection, podcast tech) and 1 pending; co-authored peer-reviewed work on electricity price forecasting; mentored and hired ML developers; represented SAS at LF AI & Data.

**PodRoom — Chief Technology Officer** | Remote | 2019-2021

- Built and launched **web, Android, and iOS** applications (streaming, chatrooms, discovery, recommendations); recruited and led a cross-functional team (engineering, QA, design).
- Drove product strategy, partnerships, and investor relations; raised angel funding.
- Filed and received a **US patent** for the podcasting solution; served as technical face of the brand.

**Game2Learn Lab, North Carolina State University — Graduate Research Assistant / Product Manager**  
| Raleigh, NC | 2019-2021

- Led ML/DL research for ed-tech products: personalized learning games, intelligent tutoring, and **eye-tracking** analytics.
- Created the PEDI (Piazza Explorer Dashboard for Intervention) and published design recommendations and findings used by product teams.

**Venture Garden Group — Product Manager / Scrum Master / Software Developer** | Lagos, Nigeria | 2014-2016

- Led mobile app architecture and delivery for Android/iOS; owned planning for VigiLearn educational product.

**Computer Warehouse Group — Software Developer** | Lagos, Nigeria | 2013-2014

- Supported and enhanced banking software systems in production.

**Fleet Technologies — Software Engineering Intern** | Abuja, Nigeria | Summer 2010

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## EDUCATION

**North Carolina State University** — Ph.D., Computer Science (Dec 2021)

- National Interest Waiver (exceptional ability); NSF Research Fellowships; Generation Google Scholar.

**North Carolina State University** — M.S., Computer Science (Dec 2019)

- NCWIT Collegiate Award.

**University of Lagos** — B.Sc., Computer Science, First Class Honours (Oct 2011)

- Best Graduating Student; Federal Government Scholarships.

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## SELECTED PATENTS

- **US 12,190,219** — Systems & methods for outlier detection and feature transformation in ML model training.
  - **US 11,890,460** — Systems, methods & GUIs for taxonomy-based classification.
  - **US 11,841,851** — Systems, methods & GUIs for taxonomy-based classification.
  - **US 12,165,221 B2** — PodRoom podcast community system.
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## PUBLICATIONS (SELECTED)

- Nyangon, **Akintunde** (2024). *Principal component analysis of day-ahead electricity price forecasting in CAISO...*
  - **Akintunde**, Limke, Barnes, Heckman, Lynch (2021). *PEDI – Piazza Explorer Dashboard for Intervention.*
  - **Akintunde**, Shabrina, Catete, Barnes, Lynch, Rutherford (2020). *Data-informed Curriculum Sequences for a Curriculum-Integrated Game.*
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## LEADERSHIP & RECOGNITION

- **SAS Voting Representative**, LF AI & Data Technical Advisory Committee (Mar 2024–Jan 2025).
  - **Keynote**: All Things Open AI 2025.
  - Mentored senior associates; led NCSU Senior Design industry projects; multiple internal R&D demos.
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## ADDITIONAL TECHNICAL DETAILS

Python (pandas, NumPy, SciPy, scikit-learn, PyTorch, TensorFlow) • SAS / SAS Viya • R • NodeJS • Android  
NLP • Computer Vision (OpenCV, MediaPipe) • Deep Learning (CNN, LSTM) • Data Viz (Tableau, SAS VA, Shiny)  
Version control • Experiment tracking • Metrics design (task success rate, groundedness, hallucination rate, latency, cost)

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**Portfolio:** [ruthakintunde.com](http://ruthakintunde.com)

**References available upon request.**