Adele Chinda

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Professional Summary

Ph.D. student in Computer Science at **Georgia State University**, researching **agentic reasoning**, **Large Language Model (LLM) agents**, and **diffusion models**. My research focuses on building intelligent, autonomous systems capable of understanding context, reasoning through uncertainty, and executing complex, multi-step tasks. I am passionate about bridging the gap between high-level cognitive reasoning and low-level robotic control — empowering embodied agents with spatial-semantic memory, adaptive planning, and human-aligned decision-making abilities.

Research and Professional Experience

Ph.D. Researcher
Jan 2024 – Present

Assistive Intelligence Lab, Georgia State University
Atlanta, GA

- Investigating how Large Language Models can enhance both high-level and low-level planning in embodied agents.
- Designing reasoning architectures that integrate spatial-semantic memory and goal-conditioned action selection.
- Addressing challenges including partial observability, scaling semantic memory, and occlusion-aware navigation.
- Contributing to the lab's broader mission of developing adaptive, assistive AI systems for real-world collaboration.

Undergraduate Research Assistant
Sep 2023 – Jan 2024

Artificial Intelligence Lab, Belgorod State University
Belgorod, Russia

- Developed intelligent control algorithms for non-linear robotic systems, improving precision and system stability.
- Collaborated with supervisors on data-driven modeling for adaptive robotic performance in uncertain conditions.

ML Research Intern
Jun 2023 – Aug 2023

CVisionLab
Rostov, Russia

- Implemented fuzzy-logic decision systems to model uncertainty in machine perception tasks.
- Conducted experiments comparing fuzzy and probabilistic approaches to image classification and tracking.

Software Engineer
May 2022 – Aug 2023

Paytrybe
Kazan, Russia

- Led end-to-end development of Android and iOS fintech applications, including UI/UX and API integration.
- Established testing and continuous integration workflows to ensure robustness, scalability, and maintainability.

Selected Research Projects

GraPO: Graph-based Prediction of Power Outages *Project Page* — Developed a machine learning framework leveraging spatiotemporal graph neural networks to predict power outages during extreme weather events, using integrated weather, geospatial, and infrastructure datasets.

Knowledge Graph Analysis of Far-Right Networks *Project Page* — Constructed and analyzed large-scale knowledge graphs to uncover online extremist networks and study their information diffusion and community structures.

Predicting Hospital Readmission Risk from EHR Data *Project Page* — Designed experiments comparing classical ML and ensemble methods for healthcare outcome prediction, identifying key features driving early patient readmission.

Education

2024–2029	**Ph.D. in Computer Science**, Georgia State University Advisor: Dr. Yi Ding	
2020–2024	**B.Sc. in Applied Computer Science**, Belgorod State University, Russia Supervisor: Assoc. Prof. Evgenia Bolgova	GPA: 3.89/4.0 (*summa cum laude*)

Selected Publications

- **Automated Hyperparameter Optimization** — *World Science: Problems and Innovations*, A. Chinda, M. Pamanin.

- **Transformer Architecture in Artificial Intelligence** — *Global Science*, A. Chinda, V. Gromiychuk.

- **Support Vector Machines** — *Modern Scientific Knowledge*, A. Chinda, N. Derevlev.

- **Perceptron-Based Deep Learning: A Literature Review** — *Global Science*, A. Chinda.

Technical Skills

- **Machine Learning & AI:** Reinforcement Learning (MDP, Deep RL, Imitation Learning), Multimodal Learning, NLP, PDDL.

- **Frameworks & Tools:** PyTorch, TensorFlow, Hugging Face, scikit-learn, Git, Docker.

- **Simulation Environments:** AI2-THOR, Habitat, CARLA, Gazebo.

- **Research Competencies:** Experiment design, algorithm optimization, scientific communication, academic writing.

Affiliations

Collaborative Human-AI Center (CHAI)   ML Collective   Black in AI