

Biruk Gebru

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EDUCATION

Georgia State University | Atlanta, GA

May 2028

B.S. in Computer Science | GPA: 4.0+/4.0

Relevant Courses: Data Structures & Algorithms, Object-Oriented Programming, Web Development, Computer Systems, Discrete Mathematics, Linear Algebra

TECHNICAL SKILLS

Languages: Python, Java, C++, JavaScript, TypeScript, HTML/CSS, SQL

Technologies: React, Next.js, FastAPI, Node.js, MongoDB, LangChain

Tools: Git, GitHub, VS Code, IntelliJ IDEA, Eclipse

EXPERIENCE

Collaborative Human AI (CHAI) Center | Atlanta, GA

Apr. 2026 - Present

Undergraduate Research Assistant

- Building a system that allows a Boston Dynamics SPOT robot to read human emotions in real time and change its behavior based on how a person is feeling
- Writing and testing code for a pipeline that processes audio and visual signals together to understand a person's emotional state more accurately than existing methods
- Running live tests directly on the SPOT robot to see how the system performs outside of simulation, making adjustments based on real-world results

GSU STEM Center | Atlanta, GA

Mar. 2026 - Present

STEM Tutor

- Deliver one-on-one and group tutoring sessions for undergraduate students in Calculus, Discrete Mathematics, and Linear Algebra
- Facilitated group workshop and review sessions, creating a collaborative learning environment to help students work through challenging problems together
- Tracked student progress over time and adjusted tutoring sessions based on individual needs and areas of improvement

PROJECTS

ARIA — Adaptive Research Intelligence Assistant | Python, FastAPI, Next.js, TypeScript, LangChain, ChromaDB

- Built a full-stack RAG (Retrieval-Augmented Generation) pipeline enabling semantic search over user-uploaded documents using HuggingFace embeddings and ChromaDB vector store, achieving 100% retrieval accuracy on evaluation harness
- Integrated 4 LLM providers (Claude Opus 4.7, Sonnet 4.6, GPT-5.5, Gemini 3.1 Pro) with per-request model switching, query rewriting for follow-up questions, and context-aware response generation
- Implemented IP-based rate limiting, multi-session chat persistence with search and export, and a responsive Next.js frontend with real-time document management

LEADERSHIP EXPERIENCE

PROGSU — Programming Club at GSU | Atlanta, GA

Aug. 2025 - Present

- Helped organize and support a large-scale hackathon with 400+ participants alongside club members.
- Contributed to an event sponsored by major industry organizations including Microsoft, Amazon Web Services, Google Gemini, Major League Hacking, and DoorDash.