

Leslie Osei-Anane

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Education

College of Wooster

Bachelor of Arts in Computer Science

Expected Graduation – May 2027

Wooster, Ohio

Technical Skills

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

Frameworks & Infrastructure: FastAPI, Spring Boot, React, Node.js, Docker, AWS

AI/ML & Agent Systems: PyTorch, LangChain, LangSmith, Playwright, WebSockets

Experience

Software Engineering Intern

May 2026 – July 2026

College of Wooster

Wooster, Ohio

- Built a VS Code telemetry system in **JavaScript** that captures editor and terminal activity, AI conversations, and tool calls across Copilot, Codex, and Continue while integrating iTrace eye-tracking data.
- Developed a Python pipeline that unified **7,600+ events** from five data sources into synchronized developer activity timelines and summary reports across JSONL, SQLite, and XML formats.

ML Research Intern

November 2025 – Present

Algoverse

Remote

- Built an interpretability framework to test whether **STATE's** virtual cell models **capture gene-regulatory relationships**, evaluating **20 transcription factors** across two human cell lines.
- Implemented **PyTorch** layer-wise probes to evaluate unseen gene regulators, benchmarking trained models against untrained and embedding-only baselines across **140 model-layer experiments**.

Student Researcher - SOREP

October 2025 – Present

College of Wooster

Wooster, Ohio

- Developed a Python clustering and search pipeline for genome annotation analysis, processing **74,000 sequences across 18,000+ alignments at 800 sequences/sec**.
- Optimized pattern-matching and vectorization techniques to flag **45,000+** missing gene variants, achieving 100ms per-gene latency for targeted searches.

Projects

Lumon | TypeScript, Python, FastAPI, WebSockets, JavaScript, Playwright, LangSmith

Live Demo

- Designed a real-time supervision layer for browser agents, streaming live browser frames and command evidence through a **FastAPI/WebSocket** backend with approval controls.
- Implemented structured event contracts, a **reliability harness**, and optional **LangSmith** tracing for evidence-backed review, instrumenting agent sessions with **2 ms** median attach latency and **816.5 ms** median first-frame latency.

Roulette, Generative UI Platform | Python, FastAPI, Node.js, TypeScript, Redis, OpenRouter

Live Site

- Shipped a generative UI system with a custom **runtime engine** for sandboxed rendering, generating **2,300+ websites** across **17K+ API requests** with streaming responses and multi-provider orchestration.
- Optimized caching, validation, and deduplication pipelines using Redis and worker pools, eliminating **85% duplicate generations** and maintaining **99% uptime** for 100+ active users.

Holodeck, Generative VR World Engine | Python, C#, FastAPI, NumPy, ElevenLabs API, Meta Quest

Live Demo

- Built a **world compiler** that lets users walk into any room they describe, using LLM planning and schema-checked contracts to generate validated VR environments in under 100 seconds across 1,000+ reviewed assets.
- Implemented **Maximal Marginal Relevance** (MMR) asset ranking over embeddings, increasing visual diversity (ILS) by **15%** while maintaining **91%** semantic relevance across 25 validated prompts.

Leadership / Extracurricular

Black and Code (NSBE Chapter)

February 2025 – Present

Co-Founder/Treasurer

College of Wooster

- Coordinated fundraising events and secured funding, increasing resources by 30%; collaborated with executive board members to execute 2 workshops on coding and tech empowerment for underrepresented students.

ACM ICPC North America East Region

November 2025

Participant

College of Wooster

- Collaborated with 2 teammates to solve algorithmic challenges involving graph theory, dynamic programming, and combinatorics in a 5-hour regional competition.