

JAMES NJOROGÉ

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Education

Boston University

Sep. 2025 – May 2026

Master of Science, Artificial Intelligence (GPA: 3.64)

Boston, MA

- **Relevant Coursework:** Natural Language Processing, Machine Learning, Artificial Intelligence, Image & Video Computing, Data Science Tools & Applications, Computer Graphics, Computational Fabrication, Advanced Topics in CS.

Colgate University

Aug. 2021 – May 2025

Bachelor of Arts (Cum Laude); Double Major in Computer Science, Applied Mathematics

Hamilton, NY

Technical Skills

Languages: Python, SQL, Java, R, C, JavaScript/TypeScript, MATLAB

ML / AI: PyTorch, TensorFlow, scikit-learn, Hugging Face Transformers, LLMs, NLP, Computer Vision (OpenCV), pandas, NumPy

Data & Cloud: AWS, Docker, ETL pipelines, NoSQL, Power BI, Essbase

Other: Object-Oriented Programming, React Native, Next.js, Git

Projects

AgentGate: Policy-Aware AI Firewall for LLM Agents | *FastAPI, Transformers, Llama Guard*

Spring 2026

- Built a reverse-proxy AI firewall that secures LLM agents by separating policy-based tool access from a five-layer NLP safety pipeline: semantic scope checking, prompt-injection detection, PII redaction, attachment inspection, and multimodal/tool-misuse guarding.
- Integrated Prompt Guard 2 and Llama Guard with an LLM-assisted policy compiler and deterministic validation; the classifier reached 96.5% held-out accuracy at a 4.6% false-positive rate.

VisionSentry: Thermal & RGB UAV Detection and Tracking | *PyTorch, YOLOv12, OpenCV*

Spring 2026

- Engineered a modular computer-vision pipeline for small UAVs across thermal and RGB imagery, pairing a YOLOv12 detector with a BoT-SORT multi-object tracker and MOT-format trajectory export.
- Trained on a ~400K-image thermal dataset using sequence-level splits to prevent train/validation leakage, reaching 0.92 mAP@0.50 (0.91 precision, 0.89 recall).

Experience

Mondelez International HQ

June 2024 – Aug. 2024

Digital Finance Intern

Chicago, IL

- Rebuilt the MDLZ Incentive Program tracking tool as an integrated Excel, Essbase, and Power BI solution, improving visualization and reporting.
- Automated the global FP&A team's monthly financial-data ETL in Python, cutting processing time by 75% and saving ~2 days of work per month.
- Optimized financial allocations with VBA scripts, reducing a 20-hour process to 1 hour.
- Partnered with the CFO and global FP&A stakeholders to align tooling with executive requirements and presented final products to leadership, driving adoption and influencing future financial-technology strategy.

Colgate University Learning, Teaching, and Research

Sep 2024 – May 2025

Generative AI Committee

Hamilton, NY

- Explored and experimented with generative AI tools, assessing their potential to enhance student learning.
- Collaborated weekly with staff and peers to share findings and guide inquiries on GenAI applications in coursework.

Colgate University Data Science Collaboratory

June 2023 – Aug. 2023

Research Intern

Hamilton, NY

- Designed intuitive R Shiny interfaces that made complex R-based analyses accessible to users across programming skill levels.
- Developed and maintained applications for advanced statistical analysis of geospatial data, social networks, and textual corpora.
- Partnered with research teams to test hypotheses and maintain sound data and research workflows.

Colgate University Computer Science

Aug. 2023 – Dec. 2024

Teaching Assistant

Hamilton, NY

- Tutored Python and Java, reinforcing Data Structures and Algorithms concepts.
- Provided academic support and mentorship to enhance student learning.