

# Izra Bereket

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## EDUCATION

### Georgia Institute of Technology

*Master of Science in Computer Science (Starting Jan 2026)*

Atlanta, GA

*Expected Jan 2028*

### University of Minnesota Twin Cities

*Bachelor of Arts in Computer Science*

Minneapolis, MN

*May 2025*

## TECHNICAL SKILLS

**Languages:** Python, Java, C++, TypeScript, JavaScript, SQL

**Frameworks:** FastAPI, REST APIs, Flask, React, PostgreSQL, Docker, Agile/Scrum

**Libraries:** scikit-learn, Pandas, NumPy, Matplotlib, Transformers, UMAP, K-Means

## EXPERIENCE

### Software Engineer

July 2025 – Present

*Abbott - Core Diagnostics*

*Chicago, IL*

- Developed ticket processing pipeline analyzing 10K+ service records to surface trends and root causes.
- Built end to end pre-processing and embedding pipeline for 10K+ text records using Pandas, NumPy, and Qwen/BAAI models, enabling fast vector-based querying and clustering.
- Implemented interactive UMAP + K-Means cluster visualizations in Streamlit, enabling exploration of grouped ticket topics and emerging issue patterns.
- Contributed backend data flow and embedding lookup logic to support real-time visualization and insights across teams.

### Software Engineering Intern

Jun 2024 – Aug 2024

*Abbott – Infrastructure Services*

*Chicago, IL*

- Engineered a Python tool to query SQL databases, compare DNS entries, and trigger Ansible jobs, improving data accuracy and processing speed by 40%.
- Integrated automation scripts with ServiceNow, internal APIs, and DevOps pipelines—saving 400+ monthly labor hours by automating recording-access workflows.
- Enhanced 12 infrastructure automation scripts with advanced error handling, logging, and alerting, reducing job failure rates by 30%.

### Software Engineering Intern

Sep 2023 – May 2024

*Target - Cyber Threat Intelligence*

*Brooklyn Park, MN*

- Developed and maintained internal APIs using Python and PostgreSQL to power a scalable cybersecurity-focused LMS serving 300+ professionals.
- Built user metrics dashboards, automated reporting, and progress-tracking features using React and Flask, increasing engagement by 25%.
- Automated LMS workflow components, reducing average course completion time by 15% through backend optimizations and scheduled pipelines.

## PROJECTS

### Network Dashboard | Python, Kafka, InfluxDB, Grafana, Docker Compose

Aug 2025

- Deployed a real-time network monitoring system processing 5,000+ simulated events/min with <2s latency using Kafka for stream ingestion.
- Developed a Python ETL pipeline to clean, transform, and load time-series data into InfluxDB.
- Built dynamic Grafana dashboards visualizing latency, packet loss, and bandwidth usage updated every 5 seconds.

### Atlas | Python, gRPC, FastAPI, PostgreSQL, Redis, Kafka, Docker, Kubernetes - In Progress

- Designed gRPC microservices (Auth, Task, Metrics, Notification) with a FastAPI REST gateway and normalized PostgreSQL schemas.
- Implemented Redis caching/session layers and Kafka pipelines for async workflows including metric alerts and task summarization.
- Containerized and orchestrated services with Docker and Kubernetes; built a React dashboard with Prometheus/Grafana monitoring.