

Brian Maina

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EDUCATION

Boston University, Boston, MA

Expected May 2028

B.A. in Computer Science and Economics

Relevant Coursework: Data Structures & Algorithms, Analysis of Algorithms, Software Engineering, & Probability/Statistics

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, SQL, Swift, Java, C++

Frameworks & Libraries: Node.js, Express.js, FastAPI, React.js

Databases & Tools: PostgreSQL, Redis, Jest, Docker, Git, APScheduler, Render, Railway, Vercel

WORK EXPERIENCE

Software Engineer Intern

Sep 2025 – Jan 2026

Portal (EdTech Startup)

Remote

- Implemented ATS resume-scoring feature for Portal app, improving parsing accuracy by 25% by supporting PDF/JSON inputs.
- Improved repeat analysis performance by adding Redis caching (24h TTL) and basic cache instrumentation for ATS processing.
- Refactored 12 Express controllers to use dependency injection, improving testability without changing external API behavior.
- Implemented 360+ automated tests across Auth, recovery, and payments flows using Jest/Supertest, cutting QA time by ~60%.

Assistant Lead Outreach

Sep 2024 – May 2025

Engineers Without Borders (Boston University Chapter)

Boston, MA

- Led Ogiek Kwanza Project outreach, cutting well-construction turnaround 30% by coordinating 5+ engineers to analyze bids.
- Reduced projected well-work costs by 60% (\$50,000 to \$20,000) by evaluating vendor bids and sourcing alternative solutions.

PROJECTS

TriLive [[Link](#)] | *FastAPI, PostgreSQL, SQLAlchemy, Redis, APScheduler, Docker*

May 2025 – Jan 2026

- Built and deployed a FastAPI/PostgreSQL backend supporting 5+ APIs and enabling live vehicle tracking for 20+ users
- Added Redis caching (60s TTL), Redis Geo queries, and APScheduler jobs to support low-latency, real-time transit data.
- Containerized the FastAPI/Postgres/Redis stack with Docker Compose and added a health-check endpoint for service validation.
- Reduced arrival lookup latency by 32x (16ms → 0.5ms) using Redis caching for frequently requested stops.

QuantSnap [[Link](#)] | *Python, Streamlit, Plotly, yfinance, News API, Gemini*

Aug 2025 – Dec 2025

- Engineered a stock analysis platform for 300+ stocks across 12 sectors to support visualization, and market setup exploration.
- Developed a rate-limited data ingestion and validation pipeline with yfinance and data-quality checks for invalid stock data.
- Integrated news context via external APIs and designed FastAPI backend architecture for model-serving and scan endpoints.

LEADERSHIP & ACTIVITIES

Treasurer

May 2025 – Present

Boston University German Culture Club

Boston, MA

- Manage a \$1,780 semester budget (varies by funding cycle), handling purchase requests, reimbursements, and event budgeting.
- Expanded membership by 55% (60 to 93 members) by executing targeted cultural events and external collaborations.
- Maintain a ~\$1,000 reserve fund to support club operations across fluctuating semester funding.

Co-founder

Jun 2023 – Sep 2023

Digify Dubai

Dubai, UAE

- Co-founded a digital literacy initiative (featured in Khaleej Times) serving migrant workers through weekly training sessions.
- Increased digital literacy among 30+ migrant workers by delivering training modules on language learning and mobile banking.
- Streamlined procurement of 20 laptops and training materials, ensuring 100% availability for workshops to 30+ participants.

Member

Jan 2026 – Present

Hack4Impact

Boston, MA

- Participate in weekly engineering workshops, technical curriculum, and professional panels focused on software for social impact.