

# JEROME BIZIMANA

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## EDUCATION

### Northwestern University

Bachelor of Arts in Computer Science

Evanston, IL

Expected June 2027

**Relevant Coursework:** Data Structures and Algorithms, Introduction to AI, Advanced Programming, Multivariable Calculus, Linear Algebra, Special Projects in CS (Software Studio), Probabilities & Statistics, Human Computer Interaction, Discrete Mathematics, Foundations of Security

**Awards:** SIGP grant recipient of \$3,500 (2024, 2025), Dean's List Spring Quarter (2025)

## TECHNICAL SKILLS

**Programming languages:** Python, C/C++, Ruby, Java, JavaScript, Racket, DSSL2, PlAI, SQL, HTML/CSS, React, Excel

**Development Tools & DevOps:** Git, GitHub, GitHub Copilot, VS Code

**Machine Learning & Web Tech:** TensorFlow, OpenAI GPT-4o for natural language processing, prompt engineering for travel recommendation generation, LLMs, HTTP/S, RESTful APIs, JWT Authentication, Jupyter Notebook

## PROJECTS

### Cursor IDE Redesign — AI-Driven Developer Tool Prototype

Evanston, IL

Full-Stack Developer & HCI Researcher

July 2025 – August 2025

- Co-led redesign of Cursor AI code editor, building a functional prototype that streamlined developer workflows and AI collaboration.
- Designed and implemented key features—visual versioning, AI side-by-side previews, and simplified commit/revert workflows—using React, JavaScript, HTML/CSS, and Fluent UI.
- Improved developer productivity and trust in AI tools by introducing clearer suggestion workflows and transparent versioning, validated through user testing.

### Travel Planner - AI-Powered Travel Recommendation Platform

Evanston, IL

Full-stack developer and Security Engineer

Fall 2025

- Developed production PWA delivering AI-powered travel itineraries via multi-API orchestration (OpenAI GPT-4o, TripAdvisor, Google Maps) with budget optimization and automated visa validation.
- Implemented security framework addressing OWASP Top 10 (SQL injection, XSS) and integrated Global Peace Index safety screening across 163 countries
- Built multi-layer validation pipeline with input sanitization and API optimization (photo scoring, caching), achieving 90+ Lighthouse PWA score on Heroku.

### nuPython Interpreter Suite: Debugger, RAM Module, and Program Execution

Evanston, IL

February 2025

Software Developer

- Developed a Python-like interpreter suite in C with program execution, expression evaluation, and memory management, transitioning core components from C++ to C for low-level efficiency.
- Built a feature-complete debugger supporting breakpoints, step execution, memory inspection, variable watches, and robust error handling for advanced control flows.
- Engineered a dynamic RAM module with strong memory safety guarantees, validated through unit tests and valgrind, enabling transparent, step-by-step visibility into execution and memory states for educational use.

More projects: [Open Street Map Navigator](#)

## WORK EXPERIENCE

### Northwestern Recreation

Evanston, IL

September 2024 – Present

Building Supervisor

- Resolve conflicts and utilize problem-solving skills to supervise a team of four Customer Service Representatives

- Oversee daily operations ensuring exceptional customer service of over 2000 patrons while sustaining facility standards and resolving issues promptly

### Tujenge Africa Foundation

Bujumbura, Burundi

May 2022 – April 2023

Tujenge Scholars Program Intern

- Mentored ~50 Burundian francophone high school graduates in SAT/TOEFL prep and university admissions to English-speaking institutions, providing individualized academic support.

- Managed key administrative tasks, including translating transcripts and guiding students through international application requirements.
- Fostered an inclusive community by facilitating group discussions, peer collaboration, and social integration across diverse backgrounds.

## LEADERSHIP EXPERIENCE

### Northwestern University

Evanston, IL

Sept 2024 - Jun 2025

African Student Association Vice President

- Led inclusive programming as Vice President, ensuring African students felt welcomed and supported, while building strong community
- Organized authentic cultural events, including traditional African marriage ceremonies, to showcase African culture

## ADDITIONAL INFORMATION

**Languages:** English, French, Swahili, Kirundi, Kinyarwanda

**Activities:** FGJI support club, H.S. Soccer Captain, Red Cross Club (President)

**Interests:** Playing soccer, fan of Liverpool FC, and driving in the U.S, Big fan of Solar System Topics