

JAPHETH KIPTOO YEGON

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EDUCATION

Northwestern University

Evanston, IL

BS in Computer Science | Minor in Machine Learning and Data Science

Graduating **June 2027**

- **Relevant Courses:** Data Structures & Algorithms, Agile Software Development, Object Oriented Programming, Hardware & Software Computer Systems, Machine Learning, Artificial Intelligence, Database Systems, Calculus, Linear Algebra

Current Upskilling Courses: CodePath - Technical Interview Prep, Microsoft Learning - C#, Java, .NET, and Azure

WORK EXPERIENCE

Millennium Solutions East Africa | Software Engineering Intern

July 2023 - Sep 2023

- Built a web dashboard tool using Rails, React, and Bootstrap, centralizing reports for 54 employees with data visualizations.
- Reduced automated emails sent to employees by 50% by modifying Airflow jobs to post data to a database.
- Collaborated in agile bi-weekly sprint goals, utilizing Git for version control and Trello for project tracking.
- Refactored code to lean into existing documentation to ensure consistent design patterns and expedited development.

STEM Impact Center Kenya | Software Engineering Intern

Jan 2023 - July 2023

- Reduced codebase size by 30% and performed thorough manual testing, simplifying future maintenance.
- Documented Docker containers and server configurations.
- Aligned website UI with third-party vendor designs using CSS and Figma.
- Utilized Splunk and Postman to troubleshoot and resolve issues in a distributed system.

Equity Bank Technological Hub | Computer Science Tutor

July 2023 - Aug 2023

- Developed curriculum for intensive, week-long coding sessions with scholars presenting personalized projects.
- Conducted 3-hour lab weekly to help 50+ students apply OOP concepts and develop object-oriented thinking.
- Monitored agile development cycles, including daily stand-ups, sprint planning, and sprint review.

PROJECTS

TravelScheduler 201 | C++ | [Github](#)

Feb 2024 - April 2024

- Parsed Northwestern's OpenStreetMap data and visualized buildings and pathways using Google Maps API.
- Implemented local file system storage and Git Large File Storage for reliable handling of 100+ MB of OSM data.
- Simulated calls to CTA Bus Tracker API based on user location, retrieving real-time bus transit schedules.

NuPython Interpreter | Python, C | [Github](#)

Jan 2024 - Mar 2024

- Created a Python interpreter within a C framework, integrating Python syntax and semantics using Backus-Naur Form.
- Optimized codebase, enhancing interpreter efficiency for complex Python script execution.
- Wrote and refactored 50+ unit tests using Google Test, significantly increasing code coverage.

WanderLust WayFinder | HTML, Tailwind CSS, React.js, Ruby | [Github](#)

July 2023 - Aug 2023

- Collaborated to build a web application that helps tourists plan travel itineraries to Kenya's renowned attraction sites.
- Incorporated secure authentication and authorization using JWT and BCrypt.
- Developed database models and performed CRUD operations with PostgreSQL.

Hope Cancer Web App | HTML, CSS, React.js, Rails | [Github](#)

June 2023 - July 2023

- Built pages and UI components using React and Tailwind CSS, leveraging REST APIs for efficient server-client communication.
- Integrated Daraja API with Rails backend for sponsor donations and payment gateways for cancer patients through M-PESA.
- Optimized website performance by reducing page load time and implementing caching techniques.

LEADERSHIP

Northwestern University Robotics Club | CompAuton Project Team Lead | [Github](#)

Sep 2023 - Present

- Designed, manufactured, and tuned robot components for the Annual Robotics Competition 2024.
- Implemented Dijkstra's Algorithm to minimize robot's navigation time through a maze.
- Automated unit test and firmware cross-compilation processes for C, C++, and Assembly code using CMake.

National Society of Black Engineers - Northwestern Chapter | Executive Board Telecommunications Chair

Dec 2023 - Present

- Maintain NSBE's website with chapter updates and manage chapter's Discord server for networking and resource exchange.
- Mentor high school students in basic programming and web development.

TECHNICAL SKILLS

Languages: Python, Java, C++, JavaScript, C, C#, Ruby, Racket, MATLAB, SQL, HTML, CSS

Frameworks and Libraries: Rails, Node.js, React.js, Django, Bootstrap, Tailwind

Tools/Technologies: Docker, Git, GitHub, Jira, Trello, JWT, BCrypt, REST APIs, Postman, Figma, Linux, MySQL, PostgreSQL, Airflow, Splunk, Google Test