

# Bertrand Sibomana

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## EDUCATION

### University Of Nebraska - Lincoln

Lincoln, NE

*Bachelor of Science in Integrated Science, Computer Science*

*Aug. 2019 – May 2023*

- Relevant Courses: Data Structures and Algorithms, Software Design and Architecture, Artificial Intelligence, Cryptography and Security, Operating Systems, Linear Algebra.

### Kigali Independent University

Kigali, RW

*Bachelor of Science in Computer Engineering*

*Mar. 2016 – Jul 2019*

- Relevant Courses: Digital Logic Design, Microprocessors and Microcontrollers, Embedded Systems, Computer Networks, VLSI Design, Computer Architecture.

## EXPERIENCE

### Senior Applications Developer

Oct 2023 – Present

*Nebraska State*

*Lincoln, NE*

- Led the development of a digital video asset management platform using AWS S3, integrating Redis for caching and CloudFront for content delivery.
- Implemented Elasticsearch for advanced search, and utilized Sentry for error logging, enhancing application reliability.
- Developed web applications and APIs focusing on JSON/XML, leveraging FastAPI for efficient API creation and PostgreSQL for database management.

### Software Engineer Intern

June 2022 – Dec 2022

*University of Nebraska Medical Center (UNMC)*

*Omaha, NE*

- Optimized a ReactJS healthcare application with a backend powered by SQL Server, boosting efficiency by 15% and bolstering data security.
- Developed a Python tool with Django, improving 'Impact searching' efficiency by 14%.
- Collaborated with engineers to develop test cases, reducing product defects by 25%, enhancing system stability, customer satisfaction, and data protection.

### Software Engineer

Oct 2021 – May 2022

*Spreetail via Raikes School*

*Lincoln, NE*

- Led the development of a recommendation engine for product categorization, achieving 99.6% accuracy with PyTorch and Scikit-learn.
- Built and deployed a RESTful Flask API to integrate the engine with existing systems.
- Automated product categorization, reducing manual effort by 90%.
- Engaged with customers for feedback, enhancing system functionality and user satisfaction.

### Information System Assistant

Mar 2021 – Aug 2021

*University of Nebraska Lincoln*

*Lincoln, NE*

- Developed post-installation scripts in Batch/Python for Windows and Linux, reducing setup time by 95%.
- Enhanced security by regularly patching system vulnerabilities.
- Managed 200+ workstations using Active Directory on LAN, including Linux platforms.
- Collaborated closely with customers to provide tailored support and ensure smooth system operation.

## PROJECTS

**Veily** | *React, Python, Flask, PostgreSQL, GraphQL, AJAX, SocketIO, Heroku, Git*

- \* Developed 'Veily', a platform for anonymous professional idea sharing using React, Flask, and PostgreSQL.
- \* Created an AI-based recommendation engine for personalized user content.

## TECHNICAL SKILLS

**Languages Frameworks:** Python, Java, C++, JavaScript, Golang, Django, Flask, Spring Boot

**Web Technologies:** React, Bootstrap, jQuery

**Database:** SQL (PostgreSQL, MySQL, SQL Server), NoSQL (MongoDB, Elasticsearch)

**Cloud Services:** AWS

**Tools Methodologies:** Git, Agile/Scrum, Elasticsearch