

Bertrand Sibomana

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Education

University of Nebraska – Lincoln
Bachelor of Science in Integrated Science & Computer Science
Relevant Courses: Data Structures and Algorithms, Software Design and Architecture, Artificial Intelligence (AI), Cryptography and Security, Operating Systems, Linear Algebra.

GPA:3.7
Aug 2019 – May 2023

Kigali Independent University
Bachelor of Science in Computer Engineering
Relevant Courses: Digital Logic Design, Microprocessors and Microcontrollers, Distributed Computing Systems, Computer Networks, VLSI Design, Computer Architecture.

Mar 2016 – Dec 2019

Skills

Programming Languages: Python, Java, C++, PHP, C#, JavaScript, Golang
Architecture & Design: Microservices, RESTful APIs, Serverless Computing
Frontend: HTML5, CSS3, JavaScript, jQuery, Bootstrap, React
UI/UX: Figma
Backend: Django, Flask, Spring Boot, Node.js, Express.js
Databases: SQL (PostgreSQL, MySQL), NoSQL (MongoDB)
Version Control: Git, GitHub |DevOps & CI/CD: Jenkins, Docker, Kubernetes, AWS
Testing: JUnit, Selenium
Methodologies: Agile/Scrum
Soft Skills: Teamwork & Collaboration, Communication, Creativity, and Innovation, Adaptability, Problem-Solving, Analytical Thinking

Experience

University of Nebraska Medical Center (UNMC)
Software Engineer Intern

- 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%.
- In collaboration with a team of software engineers, developed comprehensive test cases that reduced product defects by 25%, improved system stability and customer satisfaction, and enhanced data protection.

June 2022 – Dec 2022

Spreetail
Software Engineer Intern

- In a team of 4, I took the lead in developing a 99.6% accurate machine learning model using PyTorch and Scikit-learn in line with Agile methodologies.
- Spearheaded the engineering and system building of a RESTful Flask API backed by PostgreSQL, containerized with Docker, and orchestrated with Kubernetes, with testing via Postman.
- Enhanced data-cleaning processes, improving machine learning model performance by 20% using Pandas and NumPy.
- Achieved 90%-time efficiency in product categorization through automation.
- Engaged closely with customers to tailor solutions and gather feedback on system functionality.

Oct 2021 – May 2022

University of Nebraska Lincoln
Information System Assistant

- 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.

Mar 2021 – Aug 2021

Vivendi
Data Engineer

- Leveraged Python, PostgreSQL, and Excel to extract and interpret large-scale datasets, pinpointing key revenue opportunities from vast amounts of data.
- Conducted ETL processes on massive data streams using Apache NiFi, boosting operational efficiency and conserving over 100 man-hours monthly.
- Utilized GIS analysis with ArcGIS to transform and manage extensive datasets, ensuring the data's quality and enhancing its applicability for crucial decisions.

Feb 2019 – Jul 2019

Projects

MuteMesh

- Founded 'Mutemesh', a platform for anonymous professional idea sharing, built with React, Flask, and PostgreSQL.
- Incorporated GraphQL for efficient data querying and manipulation.
- Prioritized real-time interactions via AJAX and SocketIO with a strong emphasis on data security.
- Created a recommendation engine to deliver personalized posts to each user.

PulseChat

- Developed a real-time chat application with Flask and SocketIO for instant communication.
- Enhanced multimedia messaging using AWS, improving data efficiency by 15%.
- Strengthened security with JWT authentication, optimized stability by 20%.
- Deployed on Heroku for accessibility.

Online Event Booking Platform

- Developed an online event booking platform with React.js, Redux, Node.js, and MongoDB.
- Leveraged Express.js, JWT authentication, and integrated Stripe for secure payments.
- Tested with Jest and Enzyme, managed with Git, and deployed on Heroku, achieving an 80% rise in client bookings.