






ASAPH IRABARUTA

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SUMMARY

As a passionate problem-solving Software Engineer with a strong foundation in web development, I have successfully contributed to various projects using technologies such as JavaScript, Python, SQL, and others. My expertise extends beyond web development, evolving into DevOps Engineering, aiming at optimizing software deployment and infrastructure management. For more about me, you can visit my [personal website](#).



EDUCATION

Master of Science in Information Technology | Carnegie Mellon University
August 2022 – May 2024

Bachelor of Science in Computer Science | University of Rwanda
September 2017 – January 2022



EXPERIENCE

DevOps Engineer | Ansys
April 2024 – Present

- In this role, I am responsible for **deploying** simulation web apps in the cloud using Microsoft Azure services .
- Implemented the **CI/CD pipeline** to smoothen the continued development and deployment of simulation apps using GitHub Actions.
- Provisioned the cloud resources using **Terraform**.
- Configured virtual servers using **Ansible scripts**.
- Installed and managed kubernetes applications using **helm charts**.
- Managed and monitored **kubernetes cluster** in Azure Kubernetes Service (AKS) .

Software/DevOps Engineer | OpenCRVS
May 2023 – April 2024

- Developed a microservice web app for monitoring the status of all microservices and dependencies within the OpenCRVS system.
- Implemented the monitoring web app using **Next.js**, **Prometheus**, and **Grafana** to visualize running and stopping services, as well as key metrics of OpenCRVS servers.
- Utilized Prometheus and Alertmanager tools to **trigger alerts via email** to the IT team about low resources, ensuring timely response and resolution.
- Configured and deployed the monitoring app using **Ansible** scripts for efficient server configuration and deployment.
- Orchestrated containerization and orchestration with **Docker** and **Kubernetes**, streamlining application deployment and scalability.

- Implemented **CI/CD workflows** for building, testing, and deploying OpenCRVS using **GitHub Actions**.

Software Engineer Research Assistant | CyLab-Africa / Upanzi Network

May 2023 – April 2024

In partnership with OpenCRVS, I conducted research on technologies behind the global civil registration system - OpenCRVS. I was exposed to microservices architecture design technology using Nodejs, and GraphQL.

Full Stack Developer | Student's Documents Management System

August 2021 – January 2022

In my undergraduate, I developed a system to manage Students' documents. This replaced a paper-based system that was inefficient and prone to damage.

- I developed the frontend part of the system with **React.js and material UI**.
- I developed **REST APIs using node.js**.
- I designed a **relational database using SQL**.

Backend Developer | Imali.biz

April 2020 – August 2021

I was a backend developer of this e-commerce system whereby:

- I revamped the relational database by **indexing** using SQL. And because of this, the new database was able to retrieve data faster.
- I built **REST APIs using node.js**. And tested them using Postman.

PWSA Hackathon | Programming Workshop for Scientists in Africa (PWSA)

August 2019 – September 2019

In this hackathon organized by Glasgow University, me and my 2 colleagues were prized for the **1st position** whereby we created a new **programming language compiler** using Python.



SKILLS

- | | |
|---|---|
| • Programming Skills (Java, Python, C/C++, JavaScript, React, Node, SQL, MongoDB) | • Data Science and ML (Pandas, Numpy, Matplotlib, Scikit learn) |
| • DevOps (Github Actions, Ansible, Docker, Kubernetes, Terraform) | • Cloud Providers (AWS, Microsoft Azure, and GCP) |



ACTIVITIES

I enjoy spending time reading books and blogs about the latest software engineering technologies. In my free time, I build personal projects and solve programming challenges. More to this, I like swimming, traveling, riding a bike, and mountain hiking.