# Samuel Rutakayile

Kigali, Rwanda

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## Education

#### **Adventist University of Central Africa**

Kigali, Rwanda

Sept 2016 - Sept 2021

Bsc in Software Engineering

• First Class Honors (3.7/4.0 GPA)

• Relevant Courses: Data Structures, Big Data, C++, Java, Web Technologies, Best Programming Practices

# Work Experience

Irembo Kigali, Rwanda

Software Engineer

July 2021 - Present

- · Increased notification service's fault tolerance by 30% by handling failed notifications in retry mechanism which republishes messages in the failed queue using the "at least once" delivery guarantee
- Spearheaded the design & implementation of a reporting service that processes approx. 12M+ records and displays data through charts in a portal consumed by over 3,000 users. Cutting cost from an expensive monthly subscription of SaaS app
- · Collaborated with DevOps team to redesign & improve deployment pipelines of the crucial web platforms, reducing average deployment time from 9 mins to 3 mins by applying setting pipelines on GitHub Actions, configuring NPM module caching on app's pipelines & replacing old packaging system
- Skills: Java, Spring Cloud, Apache Solr, RabbitMQ, Postgres, AngularJS, Brotli, PurgeCSS, GitHub Actions.

**Awesomity Lab** Kigali, Rwanda

**Backend Developer** 

July 2019 - July 2021 · Architected, led, and executed the design & development of the gamification module for an Ed-Tech platform, used by over 200 Rwandans

- Transitioned version releases of core agent mobile app from manual to automated releases through Over-The-Air updates automated by Gitlab CI Pipelines, reducing deployment time of mobile applications from 10mins to 2mins.
- Improved response time per request of a slow Ed-Tech platform legacy API. Applied indexing query intensive tables, re-writing slow SQL queries & Redis caching mechanism on core API endpoints, reducing avg. response time from 20secs to 2secs
- · Spearheaded the design & configuration of CI/CD workflow for company's core finance module, allowing faster UAT testing & reducing the manpower required for deploying services.
- Skills: Java, Spring Boot, NestJS, React Native, Postgres, Redis, Gitlab CI

#### **Adventist University of Central Africa**

Kigali, Rwanda

**Teaching Assistant** 

March 2019 - August 2019 • Facilitated in teaching relevant course-related (Web Technology, Data structures & Java) topics.

- Hosted office hours to unblock students on assignments
- Coordinated class activities & Grading students' assignments
- Skills: Java, C++, Spring Boot, JSP, JSF, MySQL

### Skills

**Programming Languages** Java, Typescript, JavaScript, SQL, Python, C++, Dart.

Frameworks / Misc. Spring Boot, NestJS, Postgres, Redis, RabbitMQ, Apache Solr, Angular, React, React Native

# **Projects**

#### TypeORM Query Builder Extended

github.com/rutaks/typeorm-query-builder-extended

- A NPM library based on TypeORM that acts as a middleman, converting HTTP query parameters to DB Queries. Allowing flexible querying to an SQL database from an API endpoint
- Tools: Typescript, TypeORM, Postgres.

#### **Algo Visuals**

github.com/rutaks/algo-visuals

- A web app to visually represent the flow and sequence of complex algorithms
- Tools: React, JavaScript

#### **Video Compressor**

github.com/rutaks/video-compressor

- A 'Handbrake' based python script that compresses large video files and formats the videos into .mp4 format.
- Tools: Python

## **Achievements & Awards**

2021	First Class Honorary Award, AUCA	Rwanda
2018	2nd Runner Up. Cyberstars CTF. 2019 Rwanda Edition	Rwanda

**2nd Runner Up**, Cyberstars CTF, 2019 Rwanda Edition 2018 Mastery Award, IBM Security Intelligence Engineer Rwanda

2017 Member, University Cybersecurity Club Rwanda

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