

Ryan Musuka

Harare, Zimbabwe • +263 78 650 5496 • musuka.ryan@gmail.com

LinkedIn: www.linkedin.com/in/ryan-musuka/ • Portfolio: ryanmusuka.vercel.app • GitHub: github.com/ryanmusuka

PROFESSIONAL SUMMARY

Solutions-driven BSc Computer Science student specializing in modern full-stack development, cloud and AI. Dual-certified in Oracle Cloud and AI. Passionate about building highly performant, scalable, and user-centric web applications and software systems.

EDUCATION

National University of Science and Technology, Bulawayo, Zimbabwe (2024 - 2028)

Bachelor of Science (Hons) in Computer Science

- Distinctions: Software Engineering, Web Development, Data Structures & Algorithms, Principles of Programming Languages, Intro to Computer Science & Programming, Calculus, Discrete Mathematics, Intro to Applied Statistics.
- Activities: Google Developer Group

Eaglesvale School, Harare, Zimbabwe (2010 - 2022)

Computer Science, Physics, Mathematics (A Level)

- Grades: A Level: A*, A, A | AS: 1 a | IGCSE: 8 A*, 1 A
- Activities: Debate, Chess, Interact, Cricket, Rugby, Tennis

PROJECTS

LaughNewsWorld | Full-Stack Media & News Platform | www.laughnewsworld.vercel.app

- Architected a serverless backend with Supabase, strictly enforcing Row Level Security (RLS) to prevent unauthorized database access during user-submitted advertisement requests.
- Improved Core Web Vitals by engineering a custom lazy-loading YouTube component, reducing the initial page load payload by an estimated 70%.
- Integrated Google AdSense via Next.js <Script> injections with a GDPR-compliant CMP.
- Designed a fully responsive, mobile-first UI with Tailwind CSS and Framer Motion, ensuring fluid 60fps transitions across 100% of device sizes.

SentriHawk | Enterprise Visitor Management & Security Platform | [sentrihawk-prototype](#)

Status: Interactive prototype validated; final scalable production architecture in active development.

- Developed intelligent visitor processing algorithms with regex-based silent alarm triggers for blacklisted entities, and automated state transitions (from "Pre-Registered" to "In Building"), simulating a 50%+ reduction in manual entry processing time.
- Engineered a state-driven MVP validating complex multi-tier feature gating across 3 user archetypes.
- Designed an autonomous, client-side relational data simulation using the Web Storage API, seamlessly passing complex visitor arrays and real-time status updates across 10+ isolated DOM views.

Hydro-Smart | IoT-Based Precision Irrigation System | [Hydro-Smart Data Folder Link](#)

Role: Project Manager

- Directed a 10-member team through the SDLC, managing hardware assembly and software development concurrently to deliver a robust MVP.
- Orchestrated project planning and resource allocation by developing a comprehensive Work Breakdown Structure, Gantt charts, and sprint plans, effectively decentralizing the workload.
- Resolved critical team conflicts.
- Executed strict budget tracking for the acquisition of IoT components.

- Enforced strict adherence to IEEE software engineering standards as the documentation gatekeeper, compiling and refining all technical artifacts.

Zentinel | Traffic Police Enforcement Application | <https://zentinel-mvp-prototype.vercel.app>

Status: Final production architecture currently in active development

- Orchestrated a two-phase development lifecycle by first deploying a Vanilla JS/HTML/CSS MVP to validate the complex user flow, currently transitioning the validated logic into a scalable Next.js and TypeScript production environment.
- Engineered a highly resilient, offline-ready frontend architecture using complex mock data structures to simulate national vehicle registry (VRN) lookups, ensuring full functionality during severe network outages.
- Architected a secure, global session management system using React Context API to persistently track statutory defects across routes without exposing sensitive data in URL parameters.
- Designed a high-contrast, "ruggedized" mobile-first UI optimizing touch targets and conditional SVG rendering for high-glare outdoor visibility.

TECHNICAL SKILLS

Programming Languages: TypeScript, JavaScript (ES6+), Python, SQL, HTML5, CSS3

Frontend Ecosystem: React, Next.js (App Router), Tailwind CSS, Framer Motion, Flutter

Backend & Databases: Supabase (PostgreSQL), FastAPI

Cloud & Tools: Vercel, GitHub, Oracle Cloud

Engineering Practices: Agile/Scrum SDLC, UML Diagramming, Core Web Vitals Optimization, Project Management

CERTIFICATIONS

- [Oracle Cloud Infrastructure 2025 Certified AI Foundations Associate](#)
- [Oracle Cloud Infrastructure 2025 Certified Generative AI Professional](#)
- [Oracle Cloud Infrastructure 2025 Certified Foundations Associate](#)
- GCI Data Science Course | *Matsuo Lab, University of Tokyo* - (In Progress, Expected July 2026)

REFERENCE

Mr Khesani Richard Chilumani,

National University of Science and Technology,

Chairperson of Department of Agricultural Information Technology,

Lecturer in Computer Science Department,

+263773492419 | khesani.chilumani@nust.ac.zw

National University Of Science & Technology

Details

Surname: Musuka
Name(s): Ryan Kudzwai
Gender: Male
National ID#: 63-2359064H50
Date Of Birth: 2003-12-26
Place Of Birth Harare
Programme Bachelor of Science Honours Degree in Computer Science

Address and Contact Details

N/A
New Cranborne, Harare
Zimbabwe
Telephone :263786505496

N02425277T



Examination Results

Please Ignore Duplicate Results.

NOTE: One (1) credit denotes approximately ten (10) notional study hours of the average student's academic workload (spent in class, out-of-class, and in taking appropriate examinations)

Note: Some results may be withheld due to non clearance of fees.

Academic Year	Part	Semester	Entry Type	Course Code	Course Name	Mark	Classification	Earned Credits	Remark	Remark Notes
2025	2	1	COURSE	SCS2111	Data Communications and Computer Networks	71.00	2.1	10	Pass	
2025	2	1	COURSE	SORS2110	Introduction to Applied Statistics	75.00	1	10	Pass	
2025	2	1	COURSE	SCS2108	Object Oriented Software Concepts and Development	73.00	2.1	10	Pass	
2025	2	1	COURSE	SCS2110	Research Methods	72.00	2.1	10	Pass	
2025	2	1	COURSE	SCS2104	Structured Systems Analysis and Design	65.00	2.1	10	Pass	
2025	2	1	COURSE	SCS2114	Web Development	84.00	1	10	Pass	
2024	1	1	COURSE	SMA1101	Calculus	76.00	1	12	Pass	
2024	1	1	COURSE	SPH1105	Electricity and Magnetism	71.00	2.1	12	Pass	
2024	1	1	COURSE	SCS1112	Fundamentals of Digital Electronics	72.00	2.1	10	Pass	
2024	1	1	COURSE	SCS1101	Introduction to Computer Science and Programming	82.00	1	12	Pass	
2024	1	1	COURSE	SMA1102	Linear Algebra	68.00	2.1	12	Pass	
2024	1	1	COURSE	SCS1103	Operating Systems Concepts	62.00	2.2	10	Pass	
2024	1	1	COURSE	SCS1111	Principles of Programming Languages	83.00	1	10	Pass	
2024	1	2	COURSE	SCS1216	Computer Architecture and Organisation	72.00	2.1	10	Pass	
2024	1	2	COURSE	SCS1217	Data Structures and Algorithms	81.00	1	10	Pass	
2024	1	2	COURSE	SCS1213	Database Systems	64.00	2.2	10	Pass	
2024	1	2	COURSE	SCS1210	Discrete Mathematics	79.00	1	10	Pass	
2024	1	2	COURSE	SCS1215	Ethics and Professionalism	72.00	2.1	10	Pass	
2024	1	2	COURSE	SCS1214	Software Engineering	76.00	1	10	Pass	

Export as PDF



**NATIONAL UNIVERSITY OF SCIENCE AND
TECHNOLOGY**

COMPUTER SCIENCE DEPARTMENT

P. O. BOX AC 939 ASCOT, BULAWAYO, ZIMBABWE

Tel: +263-292-282842/282078/282007/288413 ext 2332

Fax: +263-(0)9-286803

Email: compssc@nust.ac.zw

Facebook: @NUST.ZIM

X: @nustzim

4 May 2026

TO WHOM IT MAY CONCERN

RE: INDUSTRIAL ATTACHMENT 2026/2027 ACADEMIC YEAR

Attachment Letter for Ryan Kudzwai Musuka N02425277T

I do hereby confirm that **Ryan Kudzwai Musuka** is a bona fide National University of Science and Technology student, studying towards a degree in Computer Science and due to undertake attachment from June 2026 up to 2027.

We would be grateful if you could assist the student with a position to undertake Industrial Attachment and we have no doubt that the student will perform to their best in assigned activities. We can, therefore, confidently recommend the student for the industrial attachment programme at your organisation. Your continued support is greatly appreciated.

Should you need further information on the matter please do not hesitate to contact the undersigned

Yours faithfully

A handwritten signature in blue ink, appearing to read 'N. Marabada', is located below the 'Yours faithfully' text.

MRS NAMATIRAI MARABADA

**Industrial Attachment Coordinator
COMPUTER SCIENCE DEPARTMENT**

Email: namatirai.marabada@nust.ac.zw

Cell: +263 775176782

