



# Alphaus Nkandu

**Mechanical Engineer with Specialization in Automotive Engineering & Minor in Computer Engineering**

Mechanical Engineer specialized in Automobile Engineering with a minor in Computer Engineering. Currently working as a Junior Analyst at IDC. Skilled in electric vehicle systems, simulation (GT-Suite, MATLAB), and data analysis. Known for hands-on problem-solving, cross-functional teamwork, and a strong foundation in control systems and circuit design.

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Lusaka, Zambia

Alphaus Nkandu

## SKILLS

- \* Vehicle maintenance, service and repair
- \* Vehicle troubleshooting and problem Diagnosis
- \* Pre-delivery inspection and vehicle assessment
- \* Automobile components and system design and analysis
- \* Simulation and analysis ( GT Suite, MATLAB, ANSYS)
- \* Programing for machine learning
- \* Web Development
- \* Graphic Designing
- \* Retrofitting of electric two- wheeler vehicles

## CERTIFICATION

**Databases and SQL for Data Science with Python**  
IBM, offered through Coursera

MAY 2024

**Database Management Essentials**

University of Colorado, offered through Coursera

MAY 2024

**Software Engineering: Modeling**

University of Colorado, offered through Coursera

DEC 2024

## PROFESSIONAL SUMMARY

- \* Knowledgeable in simulation and analysis software like GT Suite, MATLAB Simulink, ANSYS Basics)
- \* Proficient in programming languages including C++, C, Python, HTML, and Python for machine learning
- \* Knowledgeable in machining operations like lathe, CNC, Milling, Grinding and workshops like Welding Foundry, Forging, Fitting, Metrology and Sheetmetal
- \* Strong Communication skills, Time Management, Interpersonal Relations, Work under minimum supervision, Attention to detail, Problem solving and analytical skills

## WORK EXPERIENCE

### JUNIOR ANALYST

2025 MAR - PRESENT

#### Industrial Development Corporation

- \* Responsibilities include monitoring, evaluating and analyzing financial reports from subsidiaries, compiling quarterly and annual performance reports for management, and assisting in developing strategic plans for underperforming entities. Also grading departmental performance, identify operational inefficiencies, and suggest practical improvements, drafting Project Information Memorandums, Investment Appraisals, memos and conducting due diligence on companies expressing interest to partner with IDC.

### Quality Controller & Service Advisor

#### Tata Motors Limited Zambia

2025 JAN - MAR

- \* Responsibilities include ensure that vehicle servicing and repairs meet company and manufacturer standards liaise between customers and the workshop, advising clients on necessary repairs and timelines. coordinating with technicians, monitoring work progress, upholding safety rules

### Delhi Technological University

#### Intern, Center of Electric Vehicles,

2023 JUL - AUG

- \* Technical skills acquired includes electro fitting, designing Battery Management Systems (BMS) for Electric Vehicles (EVs), and testing various circuits using perf boards. My hands-on experience reflects practical problem-solving abilities in mechanical engineering.

## Object Oriented Programming in Java

DEC 2023

University of California San Diego through Coursera

## Machine Learning Basics

MAR 2023

Sungkyunkwan University, offered through Coursera

## PUBLICATIONS

### Performance Study of a Retrofitted Electric Two-Wheeler Using GT-Suite

The paper studies the feasibility of retrofitting an ICE motorbike into a fully electric motorbike.

Paper was successfully published in a scopus index conference of International Mechanical Engineering (ISME)

## REFERENCES

### Chabota Hamateyo

*Service Manager, Tata Zambia, Lusaka Branch*

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### Amit Pal

*Professor, Delhi Technological University*

Mechanical Engineering Department

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### Michael Kaonza

*Manager, PDI branch, Toyota Zambia*

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\* Non-technical skills acquired include collaboration and teamwork, problem-solving, and effective communication. My skills in research and analysis support informed decision-making, while my attention to detail ensures precision in my work. I also bring project management capabilities, organizing tasks, setting timelines, and coordinating efforts for efficient project completion

### Apprentice, Toyota Zambia

JUN 2019 - DEC 2020

\* Duties included Performing periodic vehicle servicing, maintenance and repairs. Diagnosing vehicles for problems that result into decreased lifespan. Performed pre-delivery inspection (PDI) on new vehicles before they were delivered to first-hand customers. Fitting auxiliary parts to vehicles according to customer's desires, i.e., bull bars, nudge bars, towing brackets, vehicle seats, and roll bars.

### Lab Assistant, Lusaka High School

JAN 2019 - APR 2019

\* Duties included: helping students perform basic high school experiments in physics, chemistry and biology. Preparing and cleaning lab apparatus before and after experiments are conducted. Explaining to students the science behind the visible results being observed in the experiments being conducted. Make up lab classes for the students lagging behind.

## EDUCATION

### B. Tech Mechanical Engineering with specialization in Automobile engineering & minor in Computer Engineering

2024

Delhi Technological University      Graduated: May 2024

### General Certificate of Education (first class)

2018

Lusaka Boys Secondary      Graduated: November 2018

## MEMBERSHIP AFFILIATIONS

### Graduate Engineer

Member of EIZ

EIZ NO: 035894543902451

2024

### President ( Delhi)

Association of Zambian students in India

Period: Jun 2022 - Aug 2024

2022

### Embassies Coordinator

Delhi Technological University

Period: Jan 2023 - Aug 2024

2024