

CURRICULUM VITAE

Peter David Mwambananji

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PERSONAL STATEMENT

Highly skilled and versatile professional with a background in biomedical engineering transitioning to industrial engineering with a focus on data science and artificial intelligence. Specialized in optimizing systems through the application of machine learning, data analytics, and big data techniques. Seeking challenging opportunities to utilize my expertise in driving data-driven decision-making, process optimization, and innovative solutions within an industrial engineering context. Committed to applying advanced technological solutions to improve efficiency, productivity, and overall performance in diverse industries.

EDUCATIONAL BACKGROUND

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| A | Qualification: | MEng. Industrial Engineering - Data Science (Cum Laude) |
| | Institution: | Stellenbosch University |
| | Years: | March 2021 – March 2023 |
| B | Qualifications: | BEng. (Hons) Biomedical Engineering (First class) |
| | Institution: | Malawi University of Science and Technology |
| | Years: | March 2014 – Nov 2019 |
| C | Qualification: | Malawi School Certificate of Education (MSCE) |
| | Institution: | Zomba Catholic Secondary School |
| | Years: | 2011 – 2013 |
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PROFESSIONAL TRAININGS

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| A | Qualification: | Certificate in Technology Commercialization: from Lab to Market |
| | Institution: | University of Malawi's Polytechnic College in Partnership with Rice University |
| | Year: | 2018 |

- B** **Qualification:** Certificate in Big Data: General Level
Institution: United Nations Education, Scientific, and Cultural Organization – International Centre for Higher Education Innovation (UNESCO-ICHEI)
Year: 2020
- C** **Qualification:** Microsoft Excel: Excel from Beginner to Advanced
Institution: Udemy
Year: 2022
- D** **Qualification:** Faculty Development Workshop on the Engineering Design Process
Institution: Rice360 Institute for Global Health Technologies
Year: 2023
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WORK EXPERIENCE

- A** **Institution:** Malawi University of Science and Technology
Position: Lecturer in Manufacturing Engineering
Period: July 2023 – Present
Duties: i. Teaching
 ii. Supervising student projects and research
 iii. Course review and development
 iv. Assessment of students' work
 v. Research and publications
 vi. Administrative duties
 vii. Industrial consultations and engagement
- B** **Institution:** Stellenbosch University
Position: Engineering Library Assistant
Period: March 2022 – November 2022
Duties: i. Assisting students' access to library materials and e-library platform
 ii. Managing library office and study rooms
 iii. Digitizing hardcopy project files
 iv. Checking in and out books
 v. Selling stationery
- C** **Institution:** Malawi University of Science and Technology
Position: Academic Intern
Period: 1st March 2020 – 28th February 2021
Duties: i. Tutoring assigned semester modules
 ii. Invigilating in an examination room
 iii. Forming and marking students' assessments

- iv. Contributing to module evaluation by analyzing the module's importance in the career progression of a student and the overall performance of students in the module.
- v. Supervising students on Work Integrated Learning (WIL) industrial attachments.
- vi. Assisting final year students' projects by helping in designing, data collection, and prototyping stages.

D Institution: Rice360 Institute for Global Health Technologies

Position: Engineering Design Studio Technician

Period: 1st April 2020 – 31st July 2020

- Duties:**
- i. Supervising students' projects
 - ii. Supervising manual laborers who were assembling face shields
 - iii. Designing and Printing Face Masks and Face Shields
 - iv. Controlling the usage of resources such as microcomputer (Arduino) circuit boards, jump wires, sensors, etc., in the Design Studio.
 - v. Supervising packaging and selling of face shields
 - vi. Designing and prototyping a low-cost ventilator
 - vii. Taking part in global design competitions

E Institution: National Statistics Office

Position: Field Supervisor

Period: 23rd August 2018 – 23rd September 2018

- Duties:**
- i. Supervising data collection by field enumerators
 - ii. Assessing quality and quantity of data collected if it meets minimum requirements
 - iii. Assigning data collecting resources, such as Computer Tablets, Maps, and airtime to enumerators
 - iv. Submitting compiled data from the enumerators to Control Centre supervisors
 - v. Training enumerators the usage of data collection software
 - vi. Collecting data in place of an absent enumerator

F Institution: Kamuzu Central Hospital

Position: Biomedical Engineering Intern

Period: 1st March 2018 – 31st July 2018

- Duties:**
- i. Installing commissioned medical devices and hospital equipment
 - ii. Decommissioning medical devices
 - iii. Repairing and maintaining medical devices
 - iv. Conducting user training on medical devices
 - v. Managing medical devices inventory records
 - vi. Managing workplace safety and health practice standards
 - vii. Assisting in projects implemented at the hospital
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SKILLS

- i. Troubleshooting and maintaining devices in a hospital setting.
 - ii. Designing and simulation using different software like AutoCAD, SolidWorks, Proteus, Fritzing, Arduino, and MATLAB.
 - iii. Clinical Engineering department management
 - iv. Basic computer programming in C++, R, and MATLAB.
 - v. Use of statistical packages like SPSS and Stata in data analysis
 - vi. Use of Microsoft Office package
 - vii. Machine learning and Artificial intelligence in python language
 - viii. Process optimisation utilizing artificial intelligence (AI) platforms
 - ix. Basic data collection, analysis, and dashboarding results using Tableau and Microsoft Power BI
 - x. BigQuery and PySpark database platforms
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LEADERSHIP

- i. Former General Secretary of Malawi Institute of Engineering-Malawi University of Science and Technology (MIE-MUST) wing
 - ii. Former President of Biomedical Engineering Society-Malawi University of Science and Technology (BMES-MUST)
 - iii. Co-founder of PUMOLA investments.
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PERSONAL ATTRIBUTES

- i. Good communication and presentation skills, fluent in English.
- ii. Professional attitude in the workplace
- iii. Easy to approach and trustworthy.
- iv. Fast learner and an active listener, adapts easily to the environment.
- v. An active role player in a team who completes assigned tasks in due time with recommendable results
- vi. Good reasoning and analytical skills.
- vii. Able to produce good results when working under pressure.

REFEREES

Dr. Richard Nkhoma
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