Keneth Paul Mwaniki

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Objective

I am a graduate Mechanical Engineer with strong foundations in 3D modelling and HVAC systems with keen interest in MEP services. I'm additionally a full-stack developer and public speaker. I have a passion for solving real-world problems through mechanical design, intuitive web platforms and community engagement.

Experience

- **Freelance Web Developer**   Feb 2025 - Current
  - Built and deployed a dynamic full stack website for the JKUAT Debate Society on Netlify and Render
  - Built fully responsive website to serve as my engineering, speaking and webdev portfolio

- **Jamboleo Auto Engineering Limited**   Jan 2024 - Mar 2024
  Engineering Attaché
  - Repaired brake disks through tanning
  - Repaired cylinder blocks by sleeve replacement and vertical boring
  - Repaired crank shafts through grinding
  - Repaired cylinder heads through facing operations
  - Replaced shaft bearings

- **Refnet Air Conditioning East Africa Limited**   Jan 2023 - Mar 2023
  Engineering Attaché
  - Surveyed sites for AC installation
  - Perfomed load calculations for AC system selections
  - Fabricated louvres and diffusers for a distributed duct system
  - Assisted in system selection for comfort AC applications
  - Installed AC systems alonside company technicians
  - Conducted regular preventive maintenance for clients with servicing contracts with the company
  - Conducted Corrective Maintenance for AC systems

- **Jomo Kenyatta University of Agriculture and Technology**   Jan 2022 - Feb 2022
  Engineering Attaché
  - Made a plumb bob through machine shop operations: facing, tanning, taper tanning, boring and threading
  - Made a wooden pattern for a steering wheel in carpentry workshop
  - Cast an alluminium steering wheel from aforementioned pattern by green sand casting in foundry
  - worshop
  - Made one way and two way light switching electric circuits in electrical workshop
  - Made a latch plate lock assembly by flat metal cutting and welding

- **Queen's Cyber Cafe**   Feb 2019 - June 2019
  Computer Packages Tutor
  Taught the microsoft office suite:
  - Ms Word
  - Ms Excel
  - Ms Access
  - Ms Publisher
  - Ms Powerpoint

Education

- **Self Taught: YouTube**   2025
  Web Development

- **Jomo Kenyatta University of Agriculture and Technology**   2025
  Bsc. Mechanical Engineering
  Second Class Honours Upper Division

- **Nairobi School**   2018
  Kenya Certificate of Secondary Education
  A-

- **Isegeretoto School**   2014
  Kenya Certificate of Primary Education
  424/500

Skills

- 3D modelling SOLIDWORKS
- 3D modelling Autodesk Inventor
- 2D drawing AutoCAD
- HVAC load calculations
- Microsoft Office
- HTML
- CSS
- JavaScript
- REACT
- NodeJS/ExpressJS
- GitHub
- Public Speaking
- Debating
- English C2
- Spanish A2
- Leadership

Projects

- **Hybrid Eddy Current-Friction Braking System**
  Was my final year project.
  Outcome: Managed to design and fabricate a test rig for a system that uses eddy currents to decelerate a rotating wheel and friction pads to get it to a halt. Speed sensors and excel graphing allowed us to compare deceleration profiles of the system while under pure friction braking, pure eddy current braking and on hybrid braking.
- **JDS website**
  Undertook a personal project to build a website for my school's debate club to help them manage meetings, recruit and train new members.
  It tested and improved my skills in both frontend and backend web development.

  Link: jdsweb.netlify.app
- **Portfolio Website**
  Built a website to showcase my skills in engineering, web development and public speaking. It serves to add credibility as well as be proof of work for my skills.

  Link: kenethmwaniki.netlify.app

Personal Details

- Date of Birth : 08/12/1999

Reference

- **Dr. Hiram Ndiritu - Jomo Kenyatta University of Agriculture and Technology**
  Principal College of Engineering
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