Asonja Taiwo Omotayo

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Professional Summary

Rooted in integrity, driven by excellence, and inspired by sustainability, Asonja uses his diverse skills to craft solutions that not only solve today's challenges but also shape a better future for generations to come. Supported by a Bachelor's degree and Master's degree in Mechanical Engineering.

Work Portfolio: www.asonja.com.ng

Skills

- Core Technical Expertise: Mechanical Manufacturing and Automation, Numerical Modelling and Simulation (Finite Element Analysis, Computational Fluid Dynamics), Engineering Optimization and Product Design.
- **Data & Analytical Proficiency:** Business Intelligence and Data Science, Data Analysis and Visualization (Proficient with Python, Excel, Power BI, Tableau).
- **Key Soft Skills:** Leadership and Resilience, Critical Thinking and Problem Solving, Effective Communication and Team Collaboration.

Professional Certifications

•	General Health, Safety and Environment (Levels 1&2) – ISPON	2025
•	Advanced Health, Safety and Environment (Levels 3) – ISPON	2025
•	Health and Safety at Work (HSE Levels 1) – World Safety Organization (WSO)	2025
•	Risk Assessment Practical Application (HSE Level 2) – World Safety Organization (WSO)	2025
•	Environmental Awareness (HSE Level 3) – World Safety Organization (WSO)	2025
•	First Aid and CPR – World Safety Organization (WSO)	2024
•	Working at Height (WAH) – World Safety Organization (WSO)	2024

Professional Experience

Mechanical Manufacturing Intern

Siemens – Nanjing, China. June 2023 – December 2024

- Designed and analyzed components using CAD software, conducted simulations, and validated prototypes.
- Collaborated with cross-functional teams and prepared detailed reports on project outcomes.

Renewable Energy Engineer

Jtech Inverter and Solar – Akure, Nigeria. April 2019 – February 2023

- Conducted residential and commercial energy audits to ASHRAE Level 2 standards.
- Designed and assessed feasibility for installing local inverters, solar water heaters, and photovoltaic systems.
- Provided recommendations on energy-saving strategies.

Professional Memberships

• Nigerian Society of Engineers (NSE)

2022

Education

Nanjing University of Science and Technology, Nanjing, China

Master's in Mechanical Engineering - Manufacturing and Automation

Federal University of Technology, Akure, Nigeria

Bachelor's in Mechanical Engineering – First Class

Publications

- 1. Book Chapter: Modeling of Air Turbine Heating Chamber An Optimization Method for Efficiency Frontiers in Physical Sciences Research, 2023
- 2. **Design of Air Turbine Heating Chamber: An Optimization Method for Efficiency** *Journal of Energy and Natural Resources Research*, 2022
- 3. Materials, Waste, and Energy-Environment Relationships in Sustainability *Journal of Materials and Technology*, 2022

Conferences and Workshops

1. Micro-Nano Satellite Manufacturing and Computational Optical Imaging Frontiers - Summer School Program

Nanjing University of Science and Technology, China August 2023

2. International Conference on Engineering for Sustainable World

Covenant University, Nigeria

November 2023

3. Motivating Multilateral Efforts to End Poverty, Quality Education, Climate Action, and Inclusivity Babcock University, Nigeria
July 2021