AYOBAMI FAITH SONIBARE JR.

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RESEARCH INTEREST

Innovating and Enhancing Material Design and Optimization through Machine Learning and Graph Neural Networks (GNNs)

EDUCATION

B.Eng., University of Ilorin, Ilorin, Nigeria   2016 - 2022
Department of Materials and Metallurgical Engineering; CGPA: 3.55 / 5.0

PROJECT EXPERIENCE

ML Collective *remote*
Independent Researcher, currently in the process of publishing my first article.   *May 2024 – Present*

Research focus: Exploring the Potential of Graph Neural Networks (GNNs) for Predicting Material Failure due to Defects in Complex Hierarchical Materials

University of Ilorin   *Ilorin, Kwara State, Nigeria*
Undergraduate Student Project   *Aug 2020 – Jan 2022*
Project Topic: Performance Evaluation of Al-Cast Rice Huller Lower Sieve Holder (LSH) And Lower Sieve Holder Support (LSHS)
- Investigated the reason for the scarcity of both the LSH and the LSHS in the market and the result of the investigation was due the high cost of production using cast-iron.
- Designed, fabricated both components using Al-Cast and carried out performance evaluation tests on both

WORK EXPERIENCE

Computer Science and Data Processing Instructor   2023 - 2024
National Youth Service Corp
- Taught the basics of computer science and data processing to high school students

Industrial Trainee   2020 - 2020
Radius Technical Company LTD., Lagos, Nigeria

- Designed cutting patterns, using AutoCAD, for a CNC plasma cutting machine;
- Involved in the welding and fabrication of a flat-bodies for trailers;
- Involved in the welding and fabrication of cylindrical and cubic fuel storage tanks.
- Provided technical design advice and counsel for the Technical Design Team improving the output and productivity of the department significantly

SKILLS

- **Materials analysis and characterization**: Skilled in analyzing engineering materials properties
- **Python Programming**: Self-taught and proficient in using Python for computation and data analysis
- **Data Analysis**: Adept with NumPy, Pandas and Matplotlib for data presentation, and visualization
- **Machine Learning**: Capable of designing and training ML models
- **AutoCAD Design**: Extensive experience in creating 2D engineering layouts and patterns
- **SolidWorks**: Competent in simulating portable engineering structures and workflows

SELECTED COMMUNITY SERVICES

Community Development Service, NYSC Actively engaged in the CDS exercises during my 1-year National Youth Service, mandatory for every higher institution graduate in Nigeria, which involves visiting orphanage homes with food items, sanitation of the community roads as well as markets and sensitization of young secondary school students on their career path (2023 - 2024)

Campus Lead, Undergraduate Tutorials, UNILORIN Helped fellow and younger undergraduates in the Faculty of Engineering grasp the concept of major courses by organizing after-school-hours tutorials (2018 - 2021)

Updated in: **June, 2024**