

John Osayona Ehimiaghe

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PROFILE

Results-driven Mechanical Engineering graduate from the University of Leeds, specialising in control systems, CAD design, and product development. Proven track record in individual and collaborative projects, including a First-class grade in an Individual Engineering Project on remote-based control systems. Holding technical and non-technical Hands-on experience in the energy industry. Proficient in Engineering, Management and IT tools. Eager to leverage technical skills and passion for engineering in a dynamic environment.

EDUCATION

Bachelor of Engineering (Mechanical Engineering), Class II Division I

University of Leeds, School of Mechanical Engineering • Leeds, UK • 2024

- Achieved a First-class grade in the Individual Engineering project (equivalent to a dissertation) on implementing a remote-based control systems educational demonstrator and coursework apparatus.

RQF level 3 (Science, Engineering, and Computing program), Credit Equivalent Average Score: 88%

Leeds International Study Centre: International Foundation Programme • Leeds, UK • 2020

- Achieved a first-class grade in Academic modules and Academic English skills assessments, with top grades in Advanced Applied Maths, Advanced Physics, Advanced Pure Maths, and Project Study.

EXPERIENCE

Mechanical Engineering Intern (NYSC)

First E&P

July 2025 - July 2026, Lagos, Ng

- Contributed to a subsea Gas Hot-Tap project by developing the tie-in arrangement through CAD modelling and technical illustrations.
- Modified an existing umbilical pull-in head and J-tube arrangement to meet weight constraints and improve usability, using CAD, animation, and FEA to validate tolerances, practicality, and preliminary structural performance.
- Developed Python-based productivity tools, contributed to an offshore smart-room IT dashboard concept, and trained fellow interns in CAD modelling, detailed drawings, and introductory FEA.
- Designed a retrofit SAL 'mainline submarine' hose floor-bed movement restrictor and contributed to the CAD design of an offshore boat landing retrofit to improve usability and safety.
- Produced technical drawings and deliverables for offshore projects, including emergency escape routes, safety equipment layouts, warehouse storage racks, and field development schematics; participated in Pre-FEED, design review, HAZID/HAZOP, and technical safety workshops.

Mechanical Engineering Intern

First E&P

April 2025 - June 2025, Lagos, Ng

- Conducted feasibility studies and installation-methodology research to support offshore equipment integration and commissioning.
- Automated the update of 200+ Microsoft Word documents using custom macros, reducing processing time from hours to minutes.
- Produced 20+ FEED CAD models across multiple projects, including upending mechanisms, suction piles, and compliance towers.
- Presented CAD concepts and project findings to senior technical staff, receiving positive feedback for clarity and innovation.
- Created technical diagrams and presentation materials to support engineering reviews and decision-making.
- Performed FEA assessments and enhanced structural designs based on analytical findings.

Mechanical Engineering Formula Student (ICE/AI) Member

University of Leeds - Formula Student

September 2020 - July 2024, Leeds, UK

- Volunteered as spokesperson, presenting the Formula Student initiative to pre-university students, highlighting its role in promoting STEM education. Additionally, delivered a presentation on "FSAI Real-World AI Implementation" for the Formula Student competition.
- Designed and manufactured the sensor plate mount for the 2024 Formula Student AI car using CAD and an acrylic-capable laser cutter.
- Contributed to the R&D of the Formula Student ICE car through CAD modelling and physically assembling components of the race car.
- Gained expertise in programming for driverless cars, focusing on sensor integration, machine learning, and path following.
- Served as head marshal during track testing, establishing safety protocols and managing track setup.

Mechanical Engineering Intern

TotalEnergies

July 2023 - September 2023, Lagos, Ng

- Enhanced personal knowledge of the energy industry, FPSO operations, and mechanical engineering, while contributing to the EGINA FPSO Maintenance and Production team's overall efficiency.
- Researched and presented weekly job updates to stakeholders on ongoing projects focusing on the preservation of specialised capital tools/equipments for the AKPO and EGINA FPSOs.
- Developed and documented detailed maintenance procedures for a range of capital tools using SAP ERP and Microsoft Office Suite.

PROJECT

Peer Mentor

University of Leeds, School of Mechanical Engineering • September 2023 – July 2024

- Actively supported and mentored multiple multiple peers by guiding incoming students through the university transition process, fostering a sense of belonging within the academic community, connecting students with experienced peers for academic support, providing additional academic support beyond tutoring, and maintaining a positive and approachable demeanour to create a supportive environment.

FEA Modelling

University of Leeds, School of Mechanical Engineering • September 2023 – May 2024

- Utilised the Abaqus FE software to model the R22 helicopter horizontal stabiliser, assessed its structural integrity, then implemented design changes that improved its initial integrity. Project graded highly in comparison to the rest of the cohort.

Medical Engineering Device

University of Leeds, School of Mechanical Engineering • September 2023 – April 2024

- Developed a clinical device that measures paediatric passive ankle flexion. Created a functional CAD design incorporating relevant biomechanics whilst adhering to appropriate medical regulations. Subsequently collaborated with a team of 7 to derive a preliminary CAD design to prototype, test, optimise, and then present to a panel of judges.

Colonoscopy Build

University of Leeds, School of Mechanical Engineering • January 2022 – July 2022

- Led a team of 7 in the development of a robotic arm that guides a ball through a human colon replica. The arm excelled in both time and accuracy relative to the cohort, securing first place overall with a time less than half that of the runner-up.

Global Health Drone: Autopilot Controller

University of Leeds, School of Mechanical Engineering • January 2021 – April 2021

- Utilised the C++ programming language and microcontrollers to develop a drone stabilisation system. Judged as producing the best performing stabilisation system in a cohort of 300+ peers.

CERTIFICATIONS

Certificate of National Service

National Youth Service Corps • 2026

- Completed the National Youth Service Corps (NYSC) program. Served within the Lagos State secretariat/community, collaborating with diverse teams to execute community projects.

Degree of Bachelor of Engineering

University of Leeds • 2024

- Bachelor of Engineering with Honours Class II Division i in Mechanical Engineering, professionally accredited/recognised by the Institution of Mechanical Engineers (IMechE).

SOLIDWORKS CAD Design Professional

Dassault Systèmes • 2024

- Certified in the professional use of SolidWorks for Computer-Aided Design (CAD).

SKILLS

Proficiency with the Arduino ecosystem, Programming (C++), Microprocessors, Control systems (PIDs), MATLAB, Simulink, Microsoft Packages, CAD (AutoCAD, SolidWorks, Solid Edge, Autodesk Inventor), FE/FEA (Abacus), Management software (SAP), Additive manufacturing techniques (3D-printing).

Engineering Best Practice, Mathematical modelling, Qualitative Product Analysis, Catalogue components selection, Written communication, Analysis, Synthesis, and Interpretation skills. Proficient in the safe use of workshop tools and equipment for mechanical and electrical purposes.

Skilled at leveraging AI tools to analyse mechanical and automotive diagnostics, streamline engineering workflows, automate document processes with Python, enhance data handling in Excel, research complex technical concepts, compare technical products, and quickly learn emerging technologies.
