

John Osayona Ehimiaghe

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PROFILE

Results-driven Mechanical Engineering graduate from the University of Leeds, specializing in control systems, and product research and development. Proven track record in individual and collaborative projects, including a First-class grade in an Individual Engineering Project on remote-based control systems. Technical and non-technical Hands-on experience in the energy industry. Proficient in SOLIDWORKS, MATLAB, Simulink, and C++. 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 · 2020-2024

- 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. Projects non-physical deliverables available on request.

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

Leeds International Study Centre: International Foundation Programme · Leeds, UK · 2019-2020

- 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 – Present, Lagos, NG

FIRST Exploration and Petroleum Development Company Limited (FIRST E&P) is a leading integrated energy solutions provider with maximum delivery capacity across the upstream oil and gas value chain, including drilling, well completion, well testing, and production operations.

Mechanical Engineering Intern

First E&P

April 2025 – June 2025, Lagos, NG

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

Mechanical Engineering Student 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, curated a presentation on "FSAI Real-World AI Implementation" for the Formula Student competition at Silverstone.
- Contributed to the research and development of the Formula Student car from supporting design research to physically assembling and installing key components on the race car.
- Gained expertise in programming for driverless cars, focusing on sensor integration, machine learning, image processing, and path following.
- Designed and manufactured the sensor plate mount for the 2024 Formula Student AI car using SolidWorks and an acrylic-capable laser cutter.
- Served as head marshal during track testing, establishing safety protocols and managing track setup.

Mechanical Engineering Intern

TotalEnergies

July 2023 – September 2023, Lagos, NG

- Developed and documented detailed maintenance procedures for a range of equipment (pumps, tugs, compressors) using SAP ERP and Microsoft Office Suite.
- Researched and presented weekly job updates to stakeholders on ongoing projects focused on preserving specialized capital tools for the AKPO and EGINA FPSOs.
- Enhanced knowledge of the energy industry, specifically FPSO operations, whilst contributing to the FPSOs Maintenance and Production (MPROC) team's overall efficiency.

UNIVERSITY PROJECTS

FEA Modelling

University of Leeds, School of Mechanical Engineering

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

Global Health Drone: Autopilot Controller

University of Leeds, School of Mechanical Engineering

- Utilized the C++ programming language and microcontrollers to develop a drone stabilization system. Judged as producing the best performing stabilization system in a cohort of 300+ individuals.

Medical Engineering Device

University of Leeds, School of Mechanical Engineering

- 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, optimize, and then present to a panel of judges.

Colonoscopy Build

University of Leeds, School of Mechanical Engineering

- 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.

Peer Mentor

University of Leeds, School of Mechanical Engineering

- 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 demeanor to create a supportive environment.

CERTIFICATIONS

Degree of Bachelor of Engineering

University of Leeds • 2024

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

SOLIDWORKS CAD Design Professional

Dassault Systèmes • 2024

- Certified in the professional use of SOLIDWORKS for CAD design

SKILLS

Proficiency with the Arduino ecosystem, Programming (C++), Microprocessors, Control systems (PIDs), MATLAB, Simulink, Microsoft Packages, CAD (AutoCAD, SOLIDWORKS), 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.
