

Ernest Tooohukwu Samuel

Mechatronics Engineer

I am a diligent and versatile engineer pursuing a MAS/MSc in Mechatronics Engineering. I hold a B.Eng. in Mechanical Engineering and have gained valuable work experience in the renewable energy industry, construction, and information and communication technology (ICT). I have a strong interest in sustainable technology. I am skilled in computer programming (Python, C++, MATLAB, HTML and PLC), energy audit, solar PV installation, leadership, emotional intelligence, CAD design, mathematical and engineering analysis, cash flow management, critical thinking, and problem-solving. With a passion for data analysis and machine learning, I am committed to utilising my skills and experience to drive innovation in sustainable development and make a meaningful impact on society.

Contact

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Ashesi University,
Berekuso, Eastern
region, Ghana



Education

MSC. MECHATRONICS ENGINEERING

Ashesi University,
Ghana
January 2023 – Present

Control Systems,
International
Environmental
Politics, Leading
Teams, Renewable
Energy Technologies,
Machine Learning,
Manufacturing
Processes, Systems
Identification and
Modeling, Robotics
and Mechatronics,
Investment appraisal
and cost-effectiveness
analysis / Corporate

Experience

FINANCE AND SPONSORSHIP MANAGEMENT

TEDXASHESIUNIVERSITY, ACCRA, GHANA
September 2022 – May 2023

- Curated and Managed budget.
- Sourced for funds and sponsorship to raise equal or more than the budgeted amount.
- Analysed and Managed Cash flow internally and externally.

OPERATIONS AND MAINTENANCE ENGINEER

ICE COMMERCIAL POWER, DELTA STATE, NIGERIA
January 2021 – January 2022

I Ensured daily Operations and maintenance of ten mini-grid solar plant sites in Asaba, Delta State, Nigeria.

- Troubleshooted, Maintained, Changed, and Installed smart meters

Responsibilities and sustainability, Energy Systems and Mobility, Process Engineering, Systems Identification and Modelling, Advanced Communication Systems and Internet of Things, Development Economics, Sustainable Engineering, Product Development and Reliability and Risk

MAS. MECHATRONICS ENGINEERING

ETH Zurich,
Switzerland
January 2022 - Present

Mathematical Tools,
Thermofluids,
Computer
Programming and
Embedded Systems,
Analog and Digital
Electronics, Statics
and Solid Mechanics,
Signals and Systems,
Material Engineering,
Dynamics and
Computational
Methods

B. ENGR MECHANICAL ENGINEERING

University of Nigeria,
Nigeria
October 2014 –
September 2019

Grade: 4.18/5

- Monitored all sites on two independent Software UI and resolved any observed issues within the shortest possible time.
- Designed, installed, and maintained Solar PV systems.
- Collated daily Energy generation and consumption data
- Detailed daily reporting to the Regional Operations Manager through Google Sheets, forms, and email.
- Carried out monthly and weekly data analysis and presentation of site performance with improvement and optimisation suggestions

MECHANICAL ENGINEERING INTERN

FEROTEX CONSTRUCTION COMPANY, ENUGU STATE, NIGERIA
April 2018 – October 2018

- Assisted in Heavy-duty machinery (Caterpillar machines and Trucks) servicing and maintenance.
- Managed spare parts Inventories, diesel, and engine oil usage daily.
- Reported to the Head of the mechanical department.

INFORMATION AND COMMUNICATION TECHNOLOGY INTERN

UNIVERSITY OF NIGERIA ICT UNIT, ENUGU STATE NIGERIA

July 2017 - September 2017

July 2016 - September 2016

- Designed and managed Google forms for e-documentation
- Carried out WIFI connectivity monitoring and downtime optimization protocols by reporting to the management.
- Transformed and uploaded physical files into e-records using Microsoft Suits, for Department of Education Foundation.

Skills

CAD Design: NX and
Autodesk Inventor.

Troubleshooting:
Mechanical and
Electrical.
Teamwork.

Programming:
Python, C++, MATLAB,
HTML and PLC.

Data Analyst and
Machine Learning.

Cash Flow
Management and
Analytics

Microsoft Office

Creativity Technique.

Problem-Solving and
Critical Thinking.

Emotional
Intelligence

Energy Audit and
Storage Design.

Electrical
Connections.

Solar PV System
Design and
Installation.

Leadership Skills

ISA VICE PRESIDENT INTERNATIONAL STUDENTS' ASSOCIATION,
ASHESI UNIVERSITY, GHANA
September 2022 – Present

ARM_Y CLUB VICE PRESIDENT ARM ENGAGE STUDENT CLUB,
ASHESI UNIVERSITY, GHANA
August 2022 – Present

PLATOON LEADER NYSC BATCH B STREAM 1, RIVERS STATE CAMP,
NIGERIA
November 2020 – October 2021

ENGINEERING DESIGN GROUP LEADER MECHANICAL ENGINEERING
DESIGN PROJECT, UNN, NIGERIA
ME511 Group six, 2019

Courses and Certifications

SOFT-SKILLS TRAINING, JOBBER MAN (COUSERA COURSE)
March 2021

PYTHON FOR DATA SCIENCE, DATAQUEST
August 2021

ARTIFICIAL INTELLIGENCE, IBM DIGITAL - NATION
(EXPLORER AWARD AND V2)
April 2020

**ENERGY TRANSITION; INNOVATION TOWARDS A LOW-CARBON
FUTURE**, IFP SCHOOL
April 2021

SOLAR PV SYSTEMS, ENERGY TALENT COMPANY
July 2020

AUTODESK INVENTOR, LINKEDIN LEARNING
May 2022

THE COSHH RISK ASSESSOR CERTIFICATION, THE KNIGHTS OF
SAFETY ACADEMY
October 2019

Volunteering

MATHEMATICS TEACHER, NATIONAL YOUTHS SERVICE CORP,
PORT HARCOURT, NIGERIA
November 2020 - October 2021

References

Available upon request.