

ALUKO SUNDAY EBENEZER

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WEBSITE

EDUCATION

State University of New York at Binghamton

May 2024

M.Sc. in Electrical/Computer Engineering CGPA 3.61

Ekiti State University, Nigeria

October 2018

B.Sc. in Electrical/Electronic Engineering CGPA 3.9

SKILLS

GENERAL/ PROGRAMMING: Automotive Protocols CAN, LIN, FlexRay and Ethernet, OBD-II, Powertrain, Python, Vehicle Diagnostics, BMS, ECU Programmer, Autolocksmith Programmer , Auto Technician

COURSEWORKS: Machine Learning, Power Electronics, Electrical circuits, Control System Computer architecture, Network Security, Digital Communication, Computer Design, Power system, Physics and Solar system, Mathematical methods in Computer Engineering, Cyber-Physical System Security, Power Electronics.

INTEREST

Automotive Test /Diagnostics, Validation, Battery Testing, Power Train, Electric Vehicle, EV Repair

WORK

EXPERIENCE

Test Engineer-Standard Motor Product (SMP) New York

March 2024- Present

Conduct testing of automotive parts involving CAN, LIN, UART, FlexRay and Ethernet

- Perform validation and debugging using Vehicle Spy NeoVI3 and VectorCANoe software on lab bench testing , using AllData, ProDemand to read read electrical diagram and testing procedure.
- Use PicoScope and oscilloscopes to monitor and analyze automotive serial communication data packets.
- I used various Intrepid Control tools for vehicle network simulation, diagnostics, and data analysis.
- Perform in-vehicle diagnostics and validation with tools such as Autel IM608 Pro, Snap-on, and Xhorse.
- Utilize ProDemand, Alldata, and Autodata for diagnostics, repair procedures, and system analysis.
- Develop tools and perform SMP verification to ensure compliance with OEM standards.
- Assist the Mechatronics department in setting up wiring and conducting tests.
- Provide detailed reports and communicate testing feedback to product managers.

Teaching Assistance (Electronics Lab) Binghamton State University New York

August 2023

- Provided support and troubleshooting for circuit errors using an oscilloscope, LTSpice, Multimeter, simulator
- Ensured proper setup of experiments and student compliance with lab safety protocols.
- Documented experiments, procedures, observations, and outcomes.
- Assisted students in meeting deadlines, supervising and grading exams.

Emission and Test Engineer- Binghamton Motorsport FSAE EV New York

September 2022-May 2024

- Conducted safety and emissions inspection. testing and validation for vehicle sensors, ECUs, control
- Utilized auto software such as AutoData, AllData, Identifix, and ElsaWin to troubleshoot electrical wiring, ensuring system functionality.
- Collaborated across teams, including electronics and ergonomics, to ensure vehicle functionality.
- Wired components using the CAN protocol, connecting airflow, fuel pumps, sensors, ignition, etc. Responsible for documentation and presentations, outlining progress, challenges .
- Conducted routine maintenance, repairs, and Vehicle inspections
Facilitated communication with design manufacturers through emails and scheduled Zoom meetings .

Battery Test Engineer Intern- New Energy New York (Ashlawn Energy)

March 2023-March 2024

- Implemented test systems for redox vanadium flow batteries.
- Validated power inverters and battery systems for UL1741 compliance

- Integrated LabVIEW and various sensors, including temperature, flow rate, and leak sensors, to monitor the flow battery.
- Conducted performance tests on flow batteries, analyzing data to optimize charge/discharge efficiency.
- Wired up the bidirectional inverters using the Modbus communication protocol with the flow battery system.
- Read and documented the charging and discharging processes of the battery using Labview.
- Conducted on-site assessments to gather electrical requirements for commercial and residential installations prior to battery deployment.

Auto Mechanical/ Programmer- Pichardson Auto Company

December 2019-May 2021

- Programmed and installed electronic systems such as immobilizers, ECUs, and remote controls.
- Troubleshooted and diagnosed security, programmed key, coded radio, using the latest scan tools such as Autel J2534, Xtool, Launch x431, ECU chip tuning tool.
- Installed car GPS, remote start, after market devices and updating vehicle software.
- Performed radio decoding, mileage correction, airbag reset, and ABS reprogramming.
- Provided customers with quotations and discussed how they can maintain related issues.

Auto Technician- Sammy Auto Electrical company

February 2012-July 2018

- I used various electrical software and scan tools such as Autodata, Alldata, Autel, XTOOL, and MB
- Performed troubleshooting and repairs on short circuits, CAN malfunctions, alternators, wiring, lights, etc.
- Handled aftermarket installations, such as replacing fuse boxes, key starters, wiper controls, ignition systems, control units, radios, etc.
- Conducted fault scans using scan tools such as Autel MK808, X100Pro, Auto 12V Tester, coil tester, etc.
- Utilized various Auto Electrical software (e.g., Autodata, ALLDATA) to locate the electrical diagrams of vehicles for tests and inspections aimed at assessing performance.
- Provided reports to customers, generated quotations, and offered advice for each client.

Programming Apprentice- Elizade Auto locksmith

March 2009-August 2011

- Acquired in-depth knowledge of Auto Dam Programming and Security troubleshooting.
- Assisted senior colleagues in complex tasks and diligently maintained daily records.

HONOR & AWARD Faculty of Engineering Outstanding Research Project of the Year: Ekiti State Government
Scholarship Undergraduate Award Dean Scholarship awarded based on academic merit.
\$10,000 grant for developing a 3-minute timer circuit to prevent vehicle hacking.

CERTIFICATION	Automotive Service Certified Technician (ASE A6) – ASE,	2024
	Inspector Officer New- York Department of Motor Vehicle - DMV	
	Certified Battery Technical New Energy New York	New-York 2024
	Specialization in Battery Types and Testing –	Binghamton University, 2023
	Sensors for Automated Vehicles –	IEEE 2023
	Intelligent Control of Connected and Automated Vehicles –	IEEE 2022
	Connected Vehicle Communication –	IEEE 2022
	Transmitters and Receivers for Hybrid Electric Vehicles –	IEEE 2021
UDEMY & COURSERA	SQL Boot camp with MySQL, PHP & Python	2023
	Windows Operating System Fundamentals, Microsoft Office 365, Security, CompTIA Cloud+ Basic	2022

USED HARDWARE: Snapon, J2534, AUTEL, LAUNCH, XTOOL, VAG, Techstream, MB STAR,

PROFESSIONAL Institute of Electrical and Electronics Engineers IEEE

MEMBERSHIP Binghamton Motor Sport-Binghamton New York

Battery Technician NENY

Child Passenger Safety Technician

Society of Automotive Engineers SAE

Automotive Service Technician (ASE)

National Society of Black Engineers (NSBE) – Collegiate Member

National Highway Traffic Safety Administration NHTSA