

Izuka Ikedionwu

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EDUCATION

BAYLOR UNIVERSITY

May 2025

Bachelor of Science in Electrical & Computer Engineering

GPA: 3.65

- Minors: **Computer Science** and **Mathematics**
- Relevant Coursework: Microprocessor Systems, Electronics, Computer Organization, Advanced Digital Logic, Data Structures, Algorithms, Signals & Systems, Applied Electricity & Magnetism

EXPERIENCE

SPACEX

Spring & Summer 2024

Electrical Engineering Intern

- Supported \$4 million dollars in savings annually by initiating memory and power electronics upgrades
- Upgraded advanced rocket booster control system's power distribution, electronics, and GUI interface reducing operation time by 66%
- Increased GPS boot up speed by 20% by developing advanced test solutions for mixed-signal circuits
- Developed custom software verification solutions for critical rocket testing sensors

LOCKHEED MARTIN-SPACE

Summer 2023

Embedded Systems Engineering Intern

- Defined and implemented system digital design for vital MHz/GHz hit detection telemetry systems
- Created PC-to-FPGA's software and hardware interface for automated testing and data analysis
- Debugged hardware systems using lab equipment like oscilloscopes, DMMs, Logic Analyzers, etc.

EXXONMOBIL

Summer 2022

Software Engineering Intern

- Deployed alarm system tool used by 20 engineers to monitor +450 miles of electrical infrastructure
- Processed over 400 metrics for statistical analysis to drive data informed business decisions
- Reduced system downtime by 50% by automating alarm protocols across 68 electrical devices

PROJECTS

Liquid Fueled Rocket Engine Hardware and Software System

- Led design and development of software, hardware, and instrumentation of 2 liquid-fueled rockets
- Designed and assembled custom circuit boards for key sensors, control, power distribution, integrated systems communications, and hardware in the loop (HITL) testing
- Wrote C++ drivers for sensors, hot-fire, power management, HITL testing, digital and analog communications on Linux and bare-metal systems for API used for +10 engineers
- Held technical reviews addressing requirements, roadblocks, project progress and technical details

Personal-Processor-Z64

- Designed a custom 64-bit ARM processor in SystemVerilog at the RTL
- Built a Python assembler for instruction execution and functional testing
- Prototyped an accelerometer interface for optimized data acquisition

SKILLS

Languages: C/C++, Python, Bash, Verilog, MATLAB, Altium, Assembly (x86, MIPS, ARM), Shell, Java, KiCad,

Technologies: Linux, Windows, LabVIEW, Xilinx/Vivado, Git, LaTeX, iOS