CHIBUIKE C. NDUBUISI

Bachelors in Electrical Engineering & minor in Mathematics | 2819 South Cooper Street, Apt. 3212, Arlington, Texas 76015 | (469) 233-5504 | chibuike2k@outlook.com | www.linkedin.com/in/chibuikendubuisi

PROFESSIONAL SUMMARY

I am committed to advancing technological solutions and enhancing project efficiency collaboratively in the electrical engineering field. Solid foundation in circuit design, signal processing, and embedded systems, with excellent analytical and problem-solving skills. I have proved strong leadership and communication skills, and I focus on circuit analysis and innovative problem-solving. I can work successfully in team environments and have had several technical projects within an academic coursework environment and a hands-on lab setting. Extremely eager to translate engineering principles into productive real-world challenges centered on innovation, efficiency, and continuous learning.

EXPERIENCES

PROJECT ANALYSIS COORDINATOR ASSISTANT | CYRAX INCORPORATION LIMITED | MARCH 2018 – AUGUST 2018

- Insertion and implementation of construction files.
- Organization of important data files and making needed and scheduled updates.
- Troubleshooting for challenges and files. Streamlined construction files implementation processes and developed systematic data organization protocols, enhancing project workflow efficiency.
- Coordinated comprehensive file management systems while implementing robust troubleshooting protocols for construction documentation.
- Optimized data organization methodology and executed timely updates, ensuring seamless project progression and documentation accuracy.

IT SPECIALIST | JOHN SNOW INC. | FEBRUARY 2019 – SEPTEMBER 2019

- Installation of the latest programs on the systems. Streamlined IT infrastructure by implementing system optimization protocols, managing hardware configurations, and delivering technical documentation for end-users.
- Orchestrated comprehensive IT support operations, enhancing system reliability through proactive maintenance and swift issue resolution.
- Modernized office productivity tools and implemented automated solutions to enhance workflow efficiency and reduce system downtime.

ADMINISTRATIVE ASSISTANT | JERBELL SAFETY STORE | APRIL 2019 – NOVEMBER 2019

- Monitor business transactions and log inventory. Streamlined inventory management protocols while overseeing product sales operations and supporting detailed transaction records for best stock control.

- Implemented systematic stock-taking procedures and enhanced business transaction monitoring to ensure correct inventory reconciliation.
- Developed a comprehensive sales monitoring framework while supporting precise product movement and stock level documentation.
- Orchestrated efficient sales monitoring systems while integrating advanced inventory transaction management.

BUILDING ASSISTANT | UNIVERSITY OF TEXAS AT ARLINGTON | JUNE 2022 – JULY 2022

- Had to arrange the facility equipment and organize materials for use.
- Responsibility of coming in early to arrange and start up the systems.
- Clean up used equipment and arrangements at the end of the day.
- Responsible for the inflow and outflow of people coming into the building,
- Assisting any personnel or individual with help at any time.

EDUCATION

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING & MINOR IN MATHEMATICS| AUGUST 2022 - PRESENT

University of North Texas, Denton, Texas

BACHELOR OF SCIENCE IN COMPUTER ENGINEERING | AUGUST 2019 – AUGUST 2021

University of Texas at Arlington, Arlington, Texas

HIGH SCHOOL DIPLOMA, CERTIFICATE | AUGUST 2012 – MAY 2018

Stella Maris College, FCT – Abuja, Nigeria

SKILLS & ABILITIES

Design Tools: KiCad, NI Multisim, MATLAB/Simulink, PSpice, SolidWorks, Quartus II, Arduino IDE, Excel.

Embedded: C, C++, MATLAB, Verilog, VHDL, USB (2.0), SPI, MicroPython.

Hardware & Equipment: Analog/Digital Design, Power Electronics, 74LSxx Series ICs, CPLD, Oscilloscope, Function Generator, Multimeter, Power Supply, Soldering Station, E-load, LEDs, Resistors, Sensors, Pi Pico, Semiconductor and Transistor.

Developed: Isometric Drawing, Sectioning, Safety Awareness, PCB Design, Breadboard circuit connection, Circuit Analysis, Microsoft Office, Leadership, Communication, Project Management, Programming, Data Analysis, Troubleshooting, File Management, System-level understanding, Quality Assurance, Critical Comparison & Evaluation, Team Collaboration, Technical Writing, Transcription, and Dictation, Logical Reasoning, Abstract Thinking, Digital Logic & Karnaugh Mapping, Timer & Sensor Integration, Hardware Prototyping.

ADDITIONAL INFORMATION

PROJECTS

ROBOT MOVEMENT GROUP PROJECT. UNIVERSITY OF TEXAS AT ARLINGTON, 2021.

- Algorithm Development: I created a control algorithm that the robot used to recognize and follow a dark track through sensor feedback and conditional logic.
- Path Navigation Programming: I instructed the robot to go through an obstacle challenge and a low-visibility tunnel by changing its speed and direction according to the sensor data it received in real-time.
- Transport Functionality: I enabled the robot with transport capabilities that would allow it to carry and deliver light objects while keeping its balance and being accurate along the path.
- Testing and Optimization: I did several tests to fine-tune the sensor to the correct calibration, increase the response accuracy, and stabilize the movement on different surfaces.

SOLAR POWERED MOBILE CHARGING STATION PROJECT. UNIVERSITY OF TEXAS AT ARLINGTON

- System Design and Algorithm Development: Initiated the design algorithm that facilitated the station's performance by effectively regulating solar input, battery storage, and power output.
- Cost Analysis and Material Procurement: I took the initiative to fully equip the unit by performing research on components, sourcing the parts, and putting them together while carrying out a cost-benefit analysis to confirm that the system would be both affordable and scalable.
- Hardware Integration and Programming: I wrote and executed the drone's operational code that enabled the core components like solar panels, charging ports, and battery management circuits to function.
- Testing and Performance Evaluation: We tested the prototype in different light and load scenarios to check the effectiveness, stability, and the safety of the charging process.

TRAFFIC LIGHT CONTROLLER – MIDTERM DIGITAL SYSTEMS PROJECT. UNIVERSITY OF NORTH TEXAS, 2024.

- Designed and implemented a finite state machine (FSM)-based traffic light controller integrating sensors and timer modules to manage signal transitions for a two-way intersection.
- Developed and simulated the digital logic design using Multisim 14.3, including Boolean logic equations, circuit design, and verification through waveform analysis.
- Programmed and verified the FSM using Verilog in Quartus II for CPLD implementation (EPM240), applying state encoding, pin assignment, and oscillator-based clocking.
- Created and tested a microcontroller version using NodeMCU (ESP8266) programmed in Arduino IDE, enabling real-time control through GPIO inputs and LED-based signal outputs.

- Constructed and tested the prototype on a breadboard, integrating logic gates (74LSxx ICs), sensors, and LEDs to demonstrate state transitions and timing accuracy.
- Compared the efficiency, complexity, and performance of three hardware design approaches: logic gate implementation, CPLD Verilog design, and MCU-based control.

STUDENT ORGANIZATION

- Member of the Computer and Technology Society at Stella Maris College
- Member of African Student Organization at UTA (ASO)
- Member of African Student Organization at UNT (ASO)

VOLUNTEER EXPERIENCE

- Charistos B.O. Hospital, Gwarinpa, FCT-Abuja (February 2018 – March 2018)
- Abraham's Children Foundation, Gwarinpa, FCT-Abuja (May 2018)