

NURUDEEN AGBONOGA

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SKILLS

Programming: C, C++, Python, PHP, CSS, HTML, SQL

Other: MATLAB, Simulink, Multisim, PSPICE, LabView, Verilog, ANSYS HFSS (High Frequency Structure Simulator), Solid Edge, Eagle, Cadence Virtuoso, HSPICE

EDUCATION

UNIVERSITY OF TEXAS AT DALLAS

Dallas, TX

Master of Science in Computer Engineering

GPA: 3.70/4.00

EXP GRAD: May 2023

UNIVERSITY OF TEXAS AT ARLINGTON

Arlington, TX

Bachelor of Science in Electrical Engineering

GPA: 3.76/4.00

GRAD: Dec 2019

EXPERIENCE

GOOGLE

San Francisco, CA

Software Engineering Intern

May 22 – Aug 22

- Implemented software solutions for automatically detecting how a Fitbit fitness tracker is worn (on a user's wrist or clipped on their hip) to solve issues that led to over \$200K in customer service costs by leveraging the device sensors and machine learning algorithms
- Built pipeline for data collection and iterating and optimizing machine learning classifiers to achieve 87% sensitivity and 89% specificity
- Integrated hip detection feature to the Fitbit tracker using techniques and parameters derived from the research phase of the project, with 100% code coverage from unit testing

ONCOR ELECTRIC DELIVERY

Dallas, TX

Systems Engineer

Nov 20 – Jun 21

- Co-ordinated with data team to provide real time power grid asset monitoring in a comprehensive graphical format for grid operators
- Incorporated personnel and public safety procedures into design and operation according to the North American Electric Reliability Corporations Critical Infrastructure Protection's protocols

THE SHOULDERS OF GIANTS

Dallas, TX

Technical Mentor/ Research Assistant

Feb 20 – Sep 21

- Volunteered as a research assistant on multiple engineering projects for STEM outreach. Tasks involved PCB design, project documentation, presenting and assembling projects with school children K-12
- Served as a technical mentor for high school students working on personal projects as well as structured projects offered by organization in various fields of engineering including biomedical and electrical

PROJECTS

Soft 16-Bit Microprocessor

- Designed a 16-bit soft pipelined microprocessor with a load store architecture capable of running user defined programs with a standard instruction set. The processor is implemented in the Zybo Z7-10 FPGA and comprises modules such as general-purpose registers, program and data memory, a stack and ability to handle interrupts

Auto-Carwash State Machine ASIC design

- Realized a state machine ASIC from the logic design and Verilog code to laying out and testing a library of standard cells in cadence virtuoso to placement and routing of final design. The final ASIC was made of 3000+ cells and it described the operation of an automatic car wash system

PUBLICATIONS

- Agbonoga N, Lalwani B, Jones E.C. Development of Affordable Smart Ingestible Pills for Safe Self Medication, International Supply Chain Technology Journal, 2019.