IBEAWUCHI B. ANOKAM

Information is offered on a need to know basis

Online Portfolio: *https://ianokam.github.io/online-portfolio/*

EDUCATION

Information is offered on a need to know basis — December, 2017
B.S. in Electrical Engineering

Information is offered on a need to know basis — Present
M.S. in Computer Science — Expected Date of Graduation: May, 2021

TECHNICAL STRENGTHS

Languages / Libraries / ToolKits	C++, Python, HTML, CSS, JavaScript, JQuery, BootStrap, MATLAB, wxWidgets
Operating Systems	Windows, MacOS, Linux
MCU Hardware Platforms	Arduino, Raspberry Pi, Texas Instruments Launchpad
Software & Tools	Xcode, Visual Studio, Arduino IDE, Energia IDE, Logisim, Microsoft Word, Microsoft Excel, Microsoft PowerPoint, Microsoft Outlook, Adobe Photoshop, Adobe Illustrator, Icon Slate

WORK EXPERIENCE

Mathematics Tutor — Information is offered on a need to know basis — **October 2014 - Present**
Information is offered on a need to know basis — **September 2017 - Present**

- Tutor students in Pre-Algebra, Algebra, Geometry, Trigonometry, Pre-Calculus, Calculus, Discrete Mathematics, and Probability and Statistics
- Provide coding assistance for students using MATLAB
- Proctor examinations for the math classes

Project Lead , ***Undergraduate Research*** — Information is offered on a need to know basis — **January 2017 – Dec. 2017**

- Managed a team of 3 individuals to ensure project deliverables were met on time, managed the budget, and acted as the main programmer of the project
- Designed a wireless sensor network with temperature sensors to ascertain real-time room temperature trends and to analyze the data to improve the efficiency of the air conditioning and heating of rooms
- Programmed in Python on Raspberry Pi Zero's Linux environment and programmed in C/C++ on Arduino's integrated development environment

Scientific Programmer — Information is offered on a need to know basis — **May 2017 – July 2017**

- Worked with university professors at the United Arab Emirates University for the research of a microfluidic device for the focusing and separation of particles flowing through a microchannel by-way-of their dielectropheretic properties
- Modeled the optimization of the particle separation trajectories with MATLAB
- Research was published in the "2018 International Conference on Manipulation, Automation and Robotics at Small Scales (MARSS)" and is available on IEEE Xplore digital library

PROJECTS

Software Developer

Pocket Calculator program **December 2019 – Jan. 2020**

- Developed a window-based GUI arithmetic software calculator with a 7-digit 9-character input and a 10-digit floating-point output value range of plus or minus (1.000000 x 10^(-6) ≤ *value* ≤ 9.99999999 x 10^(8))
- Currently operating on MacOS but will be implemented to be a cross-platform program with the ability to work on the Windows operating system
- Programmed in C++ in addition to using the wxWidgets library and respectively illustrated and outputted the programs icon with Adobe Photoshop and Icon Slate

Data Set Operations program **November 2019 – Dec. 2019**

- Designed a cross-platform 3-function command-line set operations program
- Program analyzes two data sets and allows for the select set operations of set intersection, difference, and cardinality to be performed while also checking to see if two set difference operations outputted the same elements
- Programmed in C++ on XCode for MacOS and ported to Windows using C++ / Visual C++ in Visual Studio

Web Developer

Math Notes Database Web Development Project **July 2018 - Present**

- Designed and developed a responsive website where users can access a collection of math tutoring notes, study tips, and other math resources
- Programmed in HTML, CSS, and JavaScript with the use of the JQuery library and created the sites logo and illustrations with the use of Adobe Photoshop and Illustrator

Embedded Programmer

Multi-Ultrasonic Sonar Sensor System - Radio Communication Project **Jan. 2018 – Feb. 2018**

- Programmed two Texas Instrument's Launchpad microcontrollers to communicate each other's measurements of an objects distance
- Measured the distance of objects within a 2- to 400-centimeter range of each microcontroller
- Relayed measurements to the adjacent microcontroller through radio communication with a NRF2401+ 2.4GHz wireless RF transceiver module
- Programmed in the C/C++ based Energia programming language

Multi-Ultrasonic Sonar Sensor System - Serial Communication Project **Oct. 2017 – Nov. 2017**

- Programmed two Texas Instrument's Launchpad microcontrollers to communicate each other's measurements of an objects distance
- Measured the distance of objects within a 2- to 400-centimeter range of each microcontroller
- Relayed measurements to the adjacent microcontroller through serial connection of the microcontrollers by-way-of their transmission and receiver pins
- Programmed in the C/C++ based Energia programming language

Home Security Motion Sensor System Project **March 2017 – May 2017**

- Created a motion sensor security system with an Arduino Uno microcontroller
- System alerts users to movement within the vicinity with the use of a PIR motion sensor and a shiftBrite RGB LED module
- A keypad is incorporated to reset and unlock the system with a user-set password.
- Programmed in C/C++ on Arduino IDE