

# Zubeir Osman

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**Objective:** To progress my knowledge and skills in software by interning in a challenging but instructional environment. Motivated to learn many aspects of software including, but not limited to, full stack development, machine learning, IOS/Android development and A.I.

**Personal Website** osmanzm.github.io/portfolio

**Education** Vanderbilt University, Bachelor of Science in Computer Science December 2019

**Relevant** Web Based Systems and Architecture, Programming and Problem Solving with Java,

**Coursework** Program Design and Data Structures with C++, Intermediate Software Design and Design Patterns, Discrete Structures, Digital Logic, Computer Organizations

**Internships** **PayPal Site Reliability Engineering** *Software Engineer* May 2018 – August 2018

- Developed Front End tools and websites to shift website traffic in order to prevent site outages
  - Incorporated HTML, CSS, JS, jQuery, and Python
- Created dashboards/web plugins using company API's and databases to help display site status/prevent site failure
- Implemented dashboard to depict higher level traffic flow and map deficiencies to network deficiencies
  - HTML, CSS, JS, AJAX on the Front end
  - Node/Express JS on the Backend, along with Python Flask to run the server and export API data

**Research** **Accenture Supplier Risk Platform** *Developer* January 2018-May 2018

- Develop on behalf of Accenture for a Supplier Risk Management platform using the blockchain
- Communicate with Accenture consultants weekly to present findings and discuss concerns
- Prototyped how software will look/function

## Full-Stack Projects:

- Self taught HTML/CSS as well as Bootstrap by developing static web pages and dashboards
- Incorporated JS, jQuery, and AJAX into websites by incrementally adding functionality, API's, and animations
- Learned backend through project using Node.js/Express.js (Udemy)

## C++ Projects:

### *Boggle Solver*

- Created a program that solves a boggle board of any given letter combination using the C++ language
- Implemented a Trie data structure that stores a lexicon of all “legal” words used in a boggle game for points
- Based on given letter set, walks through all combinations of letters to formulate all words to be used to gain points

### *Guitar String Simulator*

- Simulates the sounds made by plucking a guitar string using the Karplus-Strong Algorithm
- Program outputs a sound data file that has the given frequencies and associated time values
- Data file can be converted to a wave file using external software

## IOS Projects:

### *Pitch Perfect*

- Used Xcode to build an IOS app that records user audio and then manipulates it to several different voice options
- Application can be used on all IOS devices that run IOS 11

## Technical Skills:

- Beginner proficiency with IOS development using Swift
- Beginner proficiency with Android development using Android Studio
- Beginner proficiency with Node.js, Express.js
- Intermediate proficiency with Java, JavaScript, HTML, CSS, Bootstrap, jQuery, AJAX
- Advanced Proficiency with C++ and the STL

## Leadership:

Muslim Students Association Vice President/Secretary

Spring 2017 Present

National Association of Black Engineers

Fall 2016 - Present