

# Payraw Salih

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## Languages:

Fluent: C++

Comfortable: C, Java, PostgreSQL, Python, Matlab

## Skills:

OOP, Multi-Threading, Data Structures, Algorithms and Algorithm Design, Networking (JSON), GUI, Linux (Ubuntu 16.04), OS Design, Embedded Systems, Database Design Scheduling, Control Flow, Files, External Libraries. Strong Analytical Background from BA in Physics, Chemistry & Biology.

## Projects & Presentations:

### Drone Collision Avoidance System (DCAS)

Project motivated by recent technological advances in drones and requirement for intelligent avoidance systems to avoid collisions, specifically by Amazon's recent *Octocopter*. Pthreads simulate multiple drone delivery. Created a class called "drone" with origin and destination values updated by a delivery thread. Delivery takes place on a 50x50 unit matrix map. At least 10 drones must run while creating a system that will avoid collisions. Schedulers and semaphores check if positions on map are open for movement into a designated "air space." Output seen in real-time using a "map" thread.

### Pintos

Project designed by Stanford University. Consists of three major phases towards completion of the operating system including developing: timers, schedulers, argument passing, user memory access, implementing paging, stack growth, and memory mapped files. Each phase implements some functionality. Currently a work in progress to be completed in December 2017.

### Tiny-Tweeter

Implement a database schema that will allow user-user interaction on a social platform similar to twitter including user profiles, tweeting, likes, comments, following and more. Element-relationship diagram was first drawn and then implemented in PostgreSQL using CREATE TABLE statements.

### Presentations

*Black Holes and Heat Capacity - Solar Panels - NMR Spectroscopy Relaxation Times of Copper Sulfate - Laser Diffraction in Fresnel and Fraunhofer Regions - Islamic Religion*

## Work Experience:

Mobile Sales | Best Buy | Williamsville NY | 08/2015-06/2016

Consistently met required number of sales and goal for revenue while exceeding expectations as one of the top sellers.

TA Chemistry Lab at Buffalo Public Schools | 08/2013-12/2013

Assisting the students in the Buffalo Public School System during chemistry lab.

## Professional Overview

Training to become a software developer/engineer. Pursuing a BS degree in Computer Science & Engineering. Recently completed BA in Physics, Chemistry and Biology as a triple major. I am a highly motivated individual, innovative in my approach towards a solution and always willing to learn.

## Education

### University at Buffalo:

BS/MS: Computer Science & Engineering

GPA: 4.00

Graduating: 01/2019

BA: Physics, Chemistry & Biology

GPA: 2.91

Graduated: 05/2016

## Leadership

President - ISNF Youth Council (2015-Current)

President - Muslim Student Association University at Buffalo (2015-2016)

General Member- UB Physics Society (2015-2016)

Vice-President - MSA UB (2013-2015)