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## SKILLS

Java Python Bash

SAS R JavaScript

AJAX REST ASP

SQL HTML CSS

C VB.NET Git

SVN Windows

Linux macOS iOS

Android

## LANGUAGES

English

Native or Bilingual Proficiency

Arabic

Native or Bilingual Proficiency

French

Limited Working Proficiency

## INTERESTS

Tennis Hiking

Photography

Image Processing

Squaring two-digit numbers  
in my head

# Omar Hilal Shaban

Creative scientist and problem-solver, driven by passion for math and computer science

Looking for an internship that would allow me to continue to grow my programming and analytical skills, while providing significant contributions to important projects

## EDUCATION

**Bachelor of Science in Computer Science, Bachelor of Science in Statistics and Analytics**  
University of North Carolina at Chapel Hill

GPA 4.0

Expected May 2021

## WORK EXPERIENCE

### Software Testing Intern

SAS Cary, NC

05/2019 – 08/2019

- Identified and implemented improvements to the software testing framework that my team uses to test risk management software.
- Enforced input validation rules and password encryption to refine security and integrity of testing framework.
- Enhanced the runtime performance of various testing functions by factors of two to six.

### Full-Stack Development Intern

AI Tracking Solutions LLC Carrboro, NC

11/2018 – Present

- Developed and maintained a Google Cloud web application which hosts the company's particle tracking services.
- Implemented the back-end using **Python** and the **Flask** framework and created an interactive UI using **JavaScript** and **ReactJS**.
- Designed user interfaces for previewing processed videos and an admin portal to manage users and auto-generated tickets.

### Software Developer

Skynet Robotic Telescope Network Chapel Hill, NC

01/2018 – 12/2018

- Integrated an algorithm that processes and cleans radio data into the Skynet Robotic Telescope Network.
- Created a data model for radio files and processing jobs using **Python** and **SQLAlchemy**.
- Developed a **Python** API that allows users to schedule and trigger an observation campaign that will focus all observational resources on major astronomical occurrences announced by LIGO, NASA, etc...

## PROJECT EXPERIENCE

### BloodBankPro

(01/2017 – Present)

- Wrote an algorithm that automates the selection of blood reagent samples from a database so that they can be tested against patients' serum samples.
- Created the desktop application using **Java** and the web application using **Classic ASP** (BloodBankPro.com).
- Developed back-end automation functionality using **Python** and **Selenium**.
- Product saves 20-40 hours of work per week compared to selecting samples manually.
- Currently being utilized by the Transfusion Medicine Services at UNC Hospitals.

### College of Medicine and Health Sciences Attendance App

(02/2017 – 05/2017)

- Developed a mobile app that allows students to record their attendance by scanning QR codes in class.
- Leveraged third-party APIs for reading and generating QR codes that identify unique class sessions.
- Provided support for both **Android** and **iOS** mobile platforms.
- Implemented at College of Medicine and Health Sciences in UAE where it has been in use since 2017.
- Project won 1st place in nation-wide Information Technology Marathon at UAE University.

## PUBLICATIONS

Co-author: **Skynet Algorithm for Single-Dish Radio Mapping I: Contaminant-Cleaning, Mapping, and Photometry Small-Scale Structures**. *The Astrophysical Journal Supplement Series*, vol. 240, no. 1, 2019, p. 12.

Co-author: **Developing a Student Attendance App Using QR Codes: Educational and Practical Considerations**. Accepted to the *International Journal of Technology Enhanced Learning*.