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 grow and apply my programming skills in the field of machine learning

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🌐 gohilal.com
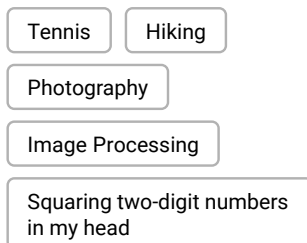
in linkedin.com/in/ohshaban

○ github.com/ohshaban

SKILLS

Java · Python · Bash · C · Clojure · VB.NET · SAS · R · JavaScript · Node.js · ReactJS · React Native · Vue.js · GCP · REST · ASP · SQL · HTML · CSS · Linux · Git · Agile

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

EDUCATION

Master of Science in Computer Science
Expected May 2022

University of North Carolina at Chapel Hill

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*

Developed a **Linux shell** in C, implemented the core functionality of **Git** in Clojure, wrote a **miniJava compiler** in Java.

WORK EXPERIENCE

Software Development Engineer - Intern

Amazon · *Seattle, WA* · *05/2020 – 08/2020*

- Designed and implemented an issue reporting feature in Point-of-Sale terminals from start to finish.
- Operated on the full stack with **Java** on the back-end and **Vue.js** on the front-end.
- Wrote a full test suite for the new feature from unit testing to integration and automation testing at all stages of the development stack.

Software Testing Intern

SAS · *Cary, NC* · *05/2019 – 08/2019*

- Identified and implemented improvements to the software testing framework that the 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 – 11/2019*

- 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 manual sample selection.
- Used by the Transfusion Medicine Services at UNC Hospitals for over a year.

PUBLICATIONS

Co-author: **Skynet Algorithm for Single-Dish Radio Mapping I: Contaminant-Cleaning, Mapping, and Photometering 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*.