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SKILLS

Java Python Bash

C Clojure VB.NET

SAS R JavaScript

TypeScript jQuery

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 Basketball

Photography Hiking

Linux customization

Mental math tricks

Omar Hilal Shaban

Creative problem-solver with experience in bringing ideas to life using a multitude of development tools and technologies

Looking for a graduate-level internship that draws on software engineering for building machine learning tools

EDUCATION

Master of Science in Computer Science

University of North Carolina at Chapel Hill

Expected May 2022

Bachelor of Science in Computer Science, Bachelor of Science in Statistics and Analytics

University of North Carolina at Chapel Hill

GPA 3.98

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

- Implemented an issue reporting feature in Point-of-Sale terminals for use by associates in physical stores.
- Communicated with various teams in order to document the feature requirements, specifications, and tech design.
- Challenge: providing associates a quick and easy way to report issues while still producing informative tickets for product managers and developers.
- Operated on the full stack with **Java** on the back-end, **Vue.js** on the front-end. **Selenium** and **Jest** used to write full test suite.
- Presented a fully documented, implemented, and tested feature that meets the requirements specified by product manager.

Software Testing Intern

SAS *Cary, NC*

05/2019 – 08/2019

- Identified and implemented improvements to the software testing framework used 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 2 to 6 depending on the function.

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 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**.
- Pioneered the development of a **Python** API that allows users to schedule and trigger observation events that focus all observational resources on a major astronomical occurrence when it is 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.
- Speeds up the identification of antibodies in a patient thus lowering the turnaround time for starting a blood transfusion.
- Created the desktop application using **Java** and the web application using **Classic ASP**.
- Developed back-end automation functionality using **Python** and **Selenium**.
- Used by the Transfusion Medicine Services at UNC Hospitals for over a year where it saved 20-40 hours of work per week compared to manual sample selection.

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**. *International Journal of Technology Enhanced Learning*, vol. 1, no. 1, 2020, p. 1. *Inderscience Publishers*, doi:10.1504/ijtel.2020.10032123.