Samer Khatib

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EDUCATION

University of Florida Gainesville, FL
GPA: 3.87 / 4.00 B.S. in Computer Engineering Expected Graduation: May 2025
Involvement: Association for Computing Machinery, Software Engineering Club, Competitive Programming Club, Solar Gators, Google Student Development Club

SKILLS

Languages: C++, Python, Java, JavaScript / TypeScript, HTML5, CSS3, Dart, Go, Ruby, SQL
Tools: Flutter, ReactJS, Angular, Git, Docker, Kubernetes, DynamoDB, Redis, npm, pip

EXPERIENCE

Chime Financial, Inc. – Software Engineering Intern – *Experimentation Platform Team* May 2024 – August 2024
- Built a *Statistical Power Calculator* by leveraging an **AWS Lambda Function** that executes a Power Analysis through a **Python Script** to query a **Snowflake Database** & compute Statistical Power, Sample Size, Significance Level (alpha), & Expected Effect Size of an experiment
- Optimized a **Golang Program** by implementing multi-threaded computing techniques & algorithms for an *API endpoint* at scale
- Deployed autoscaling **Kubernetes Pods** to host a stateful **Amazon SQS** subscriber that stores internal bucketing event messages sent by an **Amazon SNS** publisher into a **Redis Cache** when a user is bucketed into an experimental variant

Cisco Meraki – Software Engineering Intern – *vMX & MR Dashboard Teams* May – August 2023 & May – August 2022
- Created a new *API endpoint* using **Ruby on Rails** to download binary device blobs & configure device characteristics of a Wireless Access Point by converting rows from a **PostgreSQL** database into a **Comma Separated Value (CSV)** format
- Developed a **Go Package** to format the output of the command-line tool to optionally output in an **ASCII Tabular format** or *serialized* JSON
- Designed & Built a **Hashicorp Terraform** Provider to access the **Meraki Dashboard** using the *Terraform Plugin Framework* to simplify the deployment of **vMX Devices**

DigiConnect LLC. – Software Engineering Intern – *Front End Infrastructure Team* May 2021 – August 2021
- Launched *native* third-party client application for several social networking sites using **Swift (iOS)** & **Java (Android)**
- Migrated native application code base into a shared language *(Dart)* using Google's **Flutter** Software Development Kit
- Overhauled Website UI using **ReactJS** for graphical adjustments with a data pipeline built on **Apache Spark** & **Firebase**

PROJECTS @ (www.github.com/skhatib07)

VaccinApp – COVID-19 Vaccine Site Locator ***C++, Python, JavaScript***
- Finds nearest vaccine locations to the user using the user's current GPS coordinates & displays them on a map
- Retrieves vaccination site metadata from The *Socrata Open Data API* & current location from the *HTML Geolocation API*
- Collects historical data on previous vaccination queries in **JSON** format, sorting the data using a **DynamoDB** table

YOLO-ALPR – Automatic License Plate Detection & Recognition ***Python, C++,* pip**
- Detects & isolates a vehicle & vehicle's license plate in a live video stream using **Ultralytics YOLOv11** architecture
- Analyzes detected vehicle to identify physical characteristics of the vehicle (color, make, model)
- Reads & saves license plate number using **Amazon's Textract** optical character recognition (OCR) engine
- Stores plate image bitstream data in an Amazon **AWS RDS** database as a **PostgreSQL** column

Myoelectrics – Natural Robotic Hand & Actuation ***Python, Java, C++***
- Takes raw inputs from forearm muscles of user by processing raw data from 8 independent *electromyography (EMG) sensors*
- Raw inputs are passed through & filtered using Weka3's **Sequential Minimal Optimization (SMO) regression**
- Degree of finger actuation is identified after filtration using a *Recurrent Neural Network Classifier* with **Google's Tensorflow**

AWARDS

Intel Excellence in Computer Science Award March 2019, February 2020
Awarded to top student project in the Computer Science Category at the Florida State Science and Engineering Fair

Regeneron Science to Medicine Certificate of Recognition March 2019
Presented to student with research improving modern medical technology at Florida State Science and Engineering Fair