# **Omar Jamjoum**

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#### **EDUCATION**

#### San José State University

San José, California

B.S. in Software Engineering

Expected Graduation, December 2024

- **GPA:** 3.8
- Related Coursework: Programming in Java, Data Structures and Algorithms, Object Oriented Design, Computer and Human Interaction, Operating Systems, Statistics, Computer Networks, Information Security, Database Management, Software Engineering Process Management

## **EXPERIENCE**

#### **Research: Human Responses to Driving Scenarios**

Spring 2024 - Present

San José State University, Dr. Yue Luo

- Developing a program for Dr. Luo to analyze the movements and body language of drivers in real time, via a camera
  picking up their image
- Developed a python program using **OpenPose** and **OpenCV** to do human pose estimation in real time, showing a skeleton connected with lines and dots
- Writing and publishing a research paper related to findings in driver behavior

#### **STEM Instructor at Brains and Motion**

May 2024 - August 2024

San José, CA

- Implemented a comprehensive STEM curriculum designed specifically for students in 4th to 6th grade
- Lead hands-on, project-based learning activities that encourage critical thinking, problem-solving, and collaborative skills, demonstrating real-world applications of STEM concepts
- Taught simple coding concepts using languages such as Scratch and coding in Minecraft

### **PROJECTS**

Gachaurant (Android Studio, Java, XML, Firebase, Google Maps API)

- Developed an **Android Application** to allow users to locate local restaurants, using the **Google Maps API**, that match their dietary preferences through the use of filters.
- Designed the activity and fragment layouts, data structures and developed a responsive and navigable application
- Developed UML diagrams to visualize algorithm and presented it to the peers for transfer of knowledge
- Used **Firebase** database as the backend to securely store all user's information.

**Phishing Machine Learning Application** (Python, Scikit-learn, Pandas, Numpy libraries, BeautifulSoup, Tkinter)

- Created a desktop application using PyCharm and built machine learning models to detect phishing URLs and emails
- Trained 2 machine learning models with **Logistic Regression**, **Random Forests Classifier**, **Naive Bayes Classifier** and obtained an accuracy of 96% and 99% used **Kaggle** for the dataset
- Developed a simple Python GUI where users input their downloaded email files
- Created a web scraper to get information from emails, detect URLs, and further trained the model

EasyRec (JavaFX, Java, FXML, SceneBuilder, MVC)

- Developed a Java desktop application using JavaFX in Eclipse and created the layout/frontend of the application using SceneBuilder.
- Designed an application where users can create recommendation letters through a fill-out form using the MVC design pattern.
- Developed a search bar in the home page to search for saved forms
- Designed an algorithm using **serialization** where users can edit an existing fill-out form and create a new recommendation letter, all letters are saved locally on the disk.

#### SocialSync

- Set **SMART** goals to accomplish all project tasks
- Followed Agile methodology by using Sheets and Docs to keep track of tasks, meeting times and documentation.
- Drew UML and EER diagrams to visualize algorithms and application flow for peers
- Assisted developing an algorithm using machine learning models to detect non-verbal social cues via a camera input and give feedback to user in real time

## **SKILLS**

Programming: Java, C++, C, HTML, CSS, JavaScript, Kotlin, Python, MySQL, OpenPose, OpenCV

Tools: Android Studio, IntelliJ, PyCharm, Eclipse, VSC, Git, Linux, MacOS, Windows