**Zaid Omer**

A phone handset on a black background

Description automatically generated with low confidenceA picture containing cat, mammal, silhouette

Description automatically generatedzaidomerone@gmail.com | 647-996-9024 | github.com/zaidomer

 Skills

**Languages:** C, C++, Java, C#, Python, Rust, CUDA C++/CUDA C, JavaScript, TypeScript, Dart, SQL, Scala, HTML, CSS, MATLAB, Verilog, Assembly, VHDL, Bash

**Frameworks:** React/React Native, Express.js, Node.js, Flutter, Hadoop/HDFS, Thrift, Spark, Zookeeper, RAFT, Kafka, curl

**Tools:** Git, MySQL, Docker, LLaMA, Parallels, Jupyter, REST, Vim, SOAP, Jenkins, Postman, Firebase, CLion, Visual Studio, Jira

 Experience - Internships

**Apple Inc. - Embedded Firmware Engineer Jan 2023 - Apr 2023**

· Developed **C** and **C++** code for hardware modules, mock **drivers**, and high-speed data transfer**. Improved spurious emissions in** frequency response **by 20%** through code adjustments and verified results with **spectrum analyzers**.

· Contributed to Apple’s **RF** sector, used tools like **GitHub,** **Make**, **CMake**, **Peta Linux**, **CLion**, **Jenkins** for build tests, and **Parallels** for **Ubuntu** **VM**. Utilized **Python** and **Jupyter** to run debugging scripts & analyze firmware code results/graphs.

* Discussed issues with **vendors** & built upon their work. Participated in international factory build with team members.

**TD Bank - Full Stack Software Engineer May 2022 - Aug 2022**

· Functioned in a team producing a web app managing financial reports, projects, etc. **Upgraded 90%** of legacy codebase.

· Administered **SQL** to manage **15+ database tables** in **SSMS,** and **SSIS** in Visual Studio to troubleshoot bugs in migration tasks. Crafted front & back-end code in **React** & **JavaScript**. Utilized **Python** for **REST** **API** requests to access external data.

**Abliminal - Software Developer Jan 2021 - April 2021, Nov 2021 - Dec 2021**

· Led the development of a mobile app created in **React Native**. Worked with **firebase** real-time databases **storing 85%** of user-specific data, sign-up/auth, UI design, the Expoframework, and the **Google Play** Console for android testing.

· Integrated **Google Analytics** code to a **ReactJS/JavaScript** web app to observe statistical user data, and helped revamp the signup process by implementing the **auth0** framework.

**HockeyShot - Mobile Developer Sep 2021 - Nov 2021**

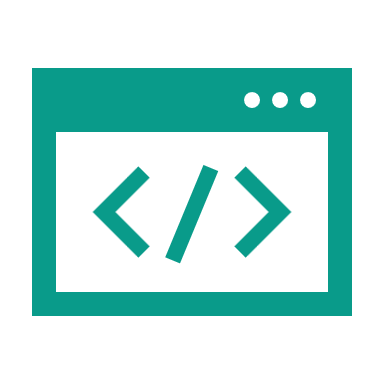
· Collaborated on a **cross-platform** Android/iOS app (**Flutter/Dart**), managing the front/back-end in a scrum environment to develop various features.

****·  Architecteddatabase models that were implemented with **firestore.** Employed **state management** tools like the ‘get’ package, streamlined code based on the model-view-view-model framework, and conducted code reviews on **GitHub**.

**Ceridian - Software Developer in Test May 2020 - Aug 2020**

· Automated UI & API tests using **Java** for the app “Dayforce” on Android/iOS. Built and/or monitored **100+ tests.**

· Worked with **Jenkins**, **JMeter**, TestNG, Junit, **Selenium**, **Xcode**, mobile emulators, and Appium to write, debug, and test code. Managed tasks in scrum with Azure DevOps. Tested **functionality on 70%** of supported OS versions.

 Projects

**AutoHelm - Final Year Design Project May 2023 - Present**

* Engineered in a team of 5; a robust multi-threaded Windows application, empowering users to automate computer tasks effortlessly. Can design workflows to automate anything using the simple UI building blocks provided by the software.
* Developed the **EBNF** **grammar** with **20+** components**,** for a **custom programming language** to handle tasks behind the scenes and a web app for sharing users’ work. Created with C#, XAML, Python, JavaScript/React, Firebase.
* Deployed **Meta's Llama 2 (Code Llama 13B)** model on an Ubuntu server. Trained it with **LoRA** on **llama.cpp** to code in our proprietary language, acting as a virtual assistant. Made an **Express-based REST API** to communicate with the **LLM**.

 Education

**University of Waterloo -** Computer Engineering Candidate 3.7/4.0 GPA, (B.A.Sc.) **Sep 2019 - Apr 2024 (Expected)**

* *Currently in Programming for Performance – CUDA C GPU programming for CNNs. Concurrency, profiling, coding in Rust*
* *Currently in Intro to Machine Learning – Data fitting, training, neural networks, decision trees, regression in Python*