

RAHMA GILLAN

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SKILLS

Languages	JavaScript, C/C++, SQL, Python, Kotlin, Java, HTML/CSS, Go, Scheme
Frameworks/Libraries	React, Next.js, Kafka, REST, gRPC, Protobuf, Node.js, Express, Bootstrap, Material UI
Data Storage	PostgreSQL, MySQL, Firestore, MongoDB, Dgraph, DynamoDB, S3
Tools	Git, AWS, GCP, Docker, VSCode, Postman, Jira, Figma, Slack, GSuite, Notion

EXPERIENCE

AirMatrix  Jan. 2021 – Apr. 2021
Toronto, ON (Remote)

Software Engineering Intern

- Reduced drone communication **latency by 700%** by replacing REST endpoints with **gRPC in C++ and JavaScript**.
- Implemented a **Kafka** producer to **load balance** data streaming **2 times more** telemetry from live drones.
- Interfaced with drone **messaging protocol** to scale concurrent initialization requests with a **blocking queue**.
- Refactored from monolithic to **microservices** architecture **removing 5000 lines of C++ and SQL** redundancies.

Clove  Mar. 2021 – Present
San Diego, CA (Remote)

Founding Engineer

- Research-based product sustainability startup seeking venture capital funding and serving **10 online businesses**.
- Developed merchant-facing **Next.js Shopify App** which automatically embeds **unique iframe labels** into stores.
- Designed back-end architecture to **render custom forms from a NoSQL database** and store multiple responses.
- Integrated **Firestore Auth**, **Google SSO**, and stored **Shopify OAuth tokens** to enforce read and write permissions.

Accenture Jun. 2020 – Aug. 2020
Toronto, ON (Remote)


Software Engineering Analyst

- Developed a proof of concept solution for the storage and transfer of health data built with **React** and **Python**.
- Utilized **Hyperledger Aries** and **Indy** to store health credentials within a user-centric **blockchain** network.
- Optimized **REST API** endpoints to improve **response times by 33%** to fetch COVID-19 vaccine and test information.

PROJECTS

Fantasy E-Sports Jun. 2021 – Aug. 2021

- League of Legends inspired app allowing users to compete in fantasy sports built with **Next.js**, **Express**, and **SQL**.
- Created a **Python script** to parse **12000 rows of data** into MySQL relations adhering to an **ER diagram**.
- Built searchable player, team, and match pages with pagination utilizing **modular React components**.

Shipmates  May 2021

- Mobile application** allowing individuals to group online orders to reduce their carbon footprint and save money.
- Built the **Express server** with **Node.js** which utilized **REST endpoints** create, read, and write from **NoSQL** tables.
- Developed endpoint to send custom phone notifications using **Twilio x Courier integration**.

Sorcery Nov. 2020 – Dec. 2020

- Two-player card game with **text-based interface** built in **C++** inspired by Magic the Gathering and Yu-Gi-Oh.
- Implemented **MVC** to support multiple interfaces and **decorator design pattern** for scalability and custom cards.
- Enforced **RAII** by using **smart pointers** and dynamically loaded the cards from customizable .txt files.

LEADERSHIP

Hack the North  Jan. 2021 – Sep. 2021
Waterloo, ON

Logistics Team Lead

- Led the logistics team (**15 hours per week**) in planning Canada's biggest hackathon with **3000+ participants**.
- Founded new career-based initiatives resulting in **100+ hours** of coffee chats and **400+ resumes critiqued**.
- Spearheaded new custom team formation tool with **1000+ users** overseeing features, timelines, and development.

EDUCATION

University of Waterloo Sep. 2019 – Aug. 2024 (expected)
Business Administration and Computer Science Double Degree Waterloo, ON