

# Omar Kamal

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## TECHNICAL SKILLS

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**Languages:** HTML/CSS, JavaScript, TypeScript, Go, C#, Rust, Python

**Frameworks:** Node.js, .NET, jQuery, JSX, Angular, React, Next, Vue, Nuxt, Astro, Express.js, Koa.js

**Databases:** SQL/MariaDB, MongoDB

**Tooling/Platforms:** Git, Docker, DigitalOcean, AWS, Vercel, bash, Powershell, Postman, ESLint, Golang Testing, GitHub Actions, Figma

## EXPERIENCE

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**Corsace** | Software Developer

2015 – Current

[corsace.io](http://corsace.io)

Edmonton, AB

- Communicated with a large scale team, and **improved organizational efficiency**, resulting in **2x event frequency** and **10-20x viewers** for livestreams.
- Developed multiple **open source websites** and a central proxy API using **Vue + Nuxt, Koa.js, typeorm**, and **MariaDB** for running various Corsace projects.
- Containerized using **Docker** and deployed in an **AWS EC2** instance to smoothly run the websites in production.
- Implemented **OAuth**, enhancing user convenience by allowing seamless login across multiple platforms.

**Shifa Medical Clinic** | Technical Assistant

2014 – 2017

[shifamedicalclinic.com](http://shifamedicalclinic.com)

Edmonton, AB

- Maintained and sanitized patient record database in **MySQL** to ensure **100% PIPEDA protocol compliance**, and **3x faster patient data retrieval** for doctors.
- Transferred patient records **in a secured manner** as necessary for referral clinics, hospitals, and pharmacies.
- Promptly managed various connection issues experienced by staff with **SQL databases and VPNs** and reduced connection issue rates by **10x**.

## PROJECTS

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**Difficulty Calculation Development**

2017 – 2019

[osu.ppy.sh](https://osu.ppy.sh)

- Greatly improved the open source game's difficulty calculation, leading to more balanced gameplay for **30 million+ users**.
- Developed in **C#** using **.NET Core** and **OpenTK**, and a small portion of **C++** to improve difficulty calculation infrastructure.
- Incorporated principles from Fitts' Law into the calculation, vastly enhancing gameplay balance and challenge predictability.
- Ensure results were optimal by communicating back and forth with various key stakeholders.

**Discord Chat Bot**

2019 – 2022

[GitHub Link](#)

- Implemented an open source chat bot using **Go** in the social messaging platform Discord, which is used regularly by **1000+ users** across many discord servers.
- Created a streamlined chat command creation framework to easily create **100+ chat commands**.
- Deployed on **AWS EC2** using an automated **Buddy CI/CD** pipeline and **CloudWatch** to ensure high availability with **99.9%+ up-time**.

## EDUCATION

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**University of Alberta**

2017 – 2023

Faculty of Engineering, BSc in Materials Engineering

Edmonton, AB