

# MUSTAFA (LIAM) MESREFOGLU

(226) 978-2747 | [mamesrefoglu@gmail.com](mailto:mamesrefoglu@gmail.com) | [linkedin.com/in/mesrefoglu](https://www.linkedin.com/in/mesrefoglu) | [github.com/mesrefoglu](https://github.com/mesrefoglu)

## EDUCATION

### Honours in Combinatorics & Optimization, Minor in Computing

University of Waterloo

Sep 2020 – Apr 2025 (Expected)

Waterloo, ON

## EXPERIENCE

### Unity AR/XR Developer

Mawari Network

Sept 2024 – Dec 2024

Waterloo, ON

- Developed XR/AR applications leveraging Unity and C# with expertise in OpenXR, ARCore, and ARKit
- Implemented custom mathematical algorithms for advanced functionality and demonstrated problem solving
- Designed demo apps and their UIs for multiple devices such as Quest 3, Magic Leap 2, XReal, and Apple Vision Pro
- Used compute shaders to utilize GPU for calculations, increasing FPS by around 2.5x
- Created automated testing applications using Bash/Shell scripting to speed up testing process by 4-5x

### Back End Engineer

Faire Wholesale Inc.

Jan 2023 – Dec 2023

Waterloo, ON

- Demonstrated leadership by managing a project with \$0.7M of annual impact as the directly responsible engineer
- Improved communication skills by giving updates about the projects to stakeholders and other developers
- Created back-end architecture using Kotlin and Java such as email compilers, backfills, events, jobs, and tasks
- Developed 20+ API endpoints using RESTful API in Kotlin for the front end
- Reviewed and provided insightful feedback on 50+ pull requests

### Introduction to CS (CS 115) Instructional Support Assistant

University of Waterloo

Sep 2021 – Dec 2021

Waterloo, ON

- Held over 30 office hours to answer student questions, enhancing student comprehension
- Maintained daily and weekly communications with team and supervisors to keep in touch
- Marked over 150 student assignments, providing constructive feedback

## PROJECTS (MORE ON GITHUB)

### Spinometry | Unity3D, C#

An idle video game, currently published in Google Play with 10000+ downloads

- Conducted in-depth mathematical analysis to pace the game progression
- Communicated with the player base to get feedback and implement them

### Weather Forecast | HTML, JavaScript, React, Tailwindcss, OpenWeatherMap, JSON

An open source aesthetic forecast web application that is published on Github Pages

- Updated and optimized API endpoints in response to revisions in the OpenWeatherMap API
- Used React use states to optimize the user experience and efficiency

### AI Motorcycle Recommender | HTML, TypeScript, React, Tailwindcss, OpenAI API

A website that helps you choose your new motorcycle with the help of AI

- Filtering a list of bikes to fit the needs of the user
- Both mobile and desktop friendly

### 3D Ray Tracer | C++

A ray tracer built using pure C++

- Implemented equations that calculate the reflections, refractions, etc. for ray tracing
- Learned the basics of graphics in computers

## TECHNICAL SKILLS

**Languages:** C, C#, C++, Kotlin, Java, HTML5, CSS3, JavaScript, Python

**Tools:** Git, Unity3D, Unreal Engine, React, REST APIs, Node.js, Jenkins, IntelliJ, CockroachDB, Hibernate

**Other:** OpenXR, ARCore, ARKit, Guice, Adobe Premiere/Photoshop

**Extracurricular:** President of UW Board Games Club, swimming, table tennis, piano