

Amjad Alsharafi

Software Engineer

✉ me@amjad.alsharafi.dev 🔗 amjad.alsharafi.dev 🌐 Amjad Alsharafi 🏠 Amjad50

PROFILE

Passionate Software Engineer with expertise in developing low-level systems, specializing in kernels, graphics systems and embedded. Skilled in creating fast and secure solutions, with a strong focus on security and malware analysis to uncover vulnerabilities and protect against attacks

SKILLS

Programming

Rust, Golang, C++, JS/TS, Python, Dart

GPU programming

OpenGL, Vulkan, Shaders, Compute

Artificial Intelligence

Training and deploying models, Classification, Image processing

DevOps and Cloud

GCP, AWS, Docker, CI/CD

Linux and System Administration

Linux environment, Shell, Setup, Maintenance

Reverse Engineering

Reversing Malware, Malware Analysis, Dynamic and Static Analysis

PROFESSIONAL EXPERIENCE

Rust System Developer, VideowindoW

Mar 2022 – present
Netherlands

- Built robust audio sync system in Rust to synchronize display with mobile phones.
- Created a web rendering engine that uses GPU to accelerate web rendering and Innovated visually-stunning creativity displays by developing intricate GPU shaders.
- Skills: **Rust, GraphQL, Linux Drivers, Graphics programming**

Security Researcher, WithSecure

Aug 2022 – present
Malaysia

- Conducting research on malware detection techniques and creating novel solutions to detect advanced threats.
- Leading research efforts to develop intelligent systems that can detect and prevent malware attacks on enterprise networks.
- Skills: **Reverse Engineering, Splunk, Vulnerability Analysis**

Lead Software Engineer, Mashag Technology

Nov 2022 – Aug 2023
Malaysia

- Leading the development of a scalable real-time weapon detection system from CCTV feeds using Microservices design.
- Optimizing the system's performance through efficient use of hardware resources and parallel processing, while considering budget constraints
- Skills: **Python, RabbitMQ, Docker, PyTorch, OpenCV**

Software Engineer, University Malaya

Feb 2021 – Nov 2021
Malaysia

- Developed a system to connect doctors in UM Hospital with Patients through chat, with several features to monitor the condition of Covid-19 patients and alert doctors on urgent cases.
- Skills: **Golang, ProtoBuf, JWT, Rest API**

SOCIAL EXPERIENCE & VOLUNTEERING

Guest Lecturer, University of Tripoli

Feb 2021 – Mar 2021

Performed Lectures on **Flutter App development** and **GIT version control** system.

Head of Contest Protocol,

Sep 2019 – Feb 2020

Programming League National 2020, University of Malaya

Volunteering in organizing a **programming contest** in the university. Was responsible of managing the questions of the contest as well as the hosting server of the competition and backend operations.

PROJECTS

Emerald, Operating System [↗](#)

Create an Operating System from scratch in Rust

See my portfolio [↗](#) for more projects not listed here

Trapezoid, PSX Emulator [↗](#)

Playstation1 Emulator in Rust, high accuracy and performance.

Mizu, Gameboy Emulator [↗](#)

Very accurate and highly performant GameBoy and GameBoy Color emulator in Rust.

Rust-lang/Rust, The Rust programming language compiler [↗](#)

Made some contributions to the Rust compiler

Vulkano, Safe and rich Vulkan API wrapper in Rust. [↗](#)

Made several contributions to vulkano while working on other GPU related projects.

Dynwave, Audio Player library [↗](#)

Cross platform Audio player library for real-time streaming audio with auto resampling

Blinkcast, Fast Broadcast channel primitive for Rust [↗](#)

Fast, Lock-free, Bounded, Lossy Rust broadcast channel/ring buffer with `no_std` support

Mathematical expression image-to-LaTeX generator, Research

Project aims to develop an AI system capable of converting typed mathematical expressions into LaTeX format. Uses Computer Vision and machine learning algorithms.

EDUCATION

Bachelor in Computer Science (Artificial Intelligent), University Malaya [↗](#)

CGPA: 3.88 (Deans award)

Sep 2018 – Feb 2022

Kuala Lumpur, Malaysia

LANGUAGES

• English

• Arabic