Khalil Jedidi

Valenciennes, France

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SUMMARY

Innovative software engineer and game developer with strong technical knowledge of gaming development, programming, Unity development, and strong technical expertise. Demonstrates excellent communication skills, adaptability in fast-paced environments, and a strong sense of team spirit. A fluent English speaker with a proven experience in video games development, including leading the creation of a cross-platform metaverse solution showcased at academic and industry events. Skilled in front and backend technologies, passionate about crafting scalable solutions and eager to contribute and make use of my creativity in dynamic projects in a full-time role.

TECHNICAL SKILLS

Programming Languages: CSharp, C++, Python, PHP, Java, JavaScript, TypeScript, Dart

Technologies: Unity, Git, REST APIs, Nginx, Apache, Server Administration, Docker

Databases/Back-end: MySQL, MongoDB, NodeJS, Django, Flask

Front-end: React, HTML, CSS, Flutter, tailwindCSS

EXPERIENCE

Software Engineer — May 2023 - Present
University Polytechnic Hauts-De-France — *Valenciennes, France*

• Developed , researched and maintained Metaverse applications, implementing cross-platform support (VR, Windows, Mac, Android, iOS) using Unity with integration of Meta Quest, XR, and Pico SDKs, creating custom editor tools.

• Led Unity development for a project that facilitated internal use by over 40 students and multiple teachers, representing the team in presentations to companies and universities while demonstrating strong leadership, communication and technical expertise.

• Worked on backend technologies including Python (creating scraping algorithms), Django, Flask, Node.js servers, with expertise in WebSocket and Socket.io communications, and server administration using Nginx and Apache.

• Managed collaborative development processes using GitLab, created comprehensive documentation, and maintained well-structured code while working on multiplayer integration with Photon PUN and Photon Voice.

• Presented the Metaverse application at multiple university events in Haut-de-France, successfully analyzing and resolving complex development challenges throughout the project lifecycle.

• Diagnosed and resolved build issues and platform-specific rejections across multiple targets, including VR, mobile, and desktop platforms. Ensured compliance with platform guidelines, debugged errors efficiently, optimized performance, and maintained seamless integration of SDKs and APIs for smooth deployment.

University Lecturer — Jan 2024 - Present
University Polytechnic Hauts-De-France — *Valenciennes, France*

• Taught VR basics using Unity.

• Guided students to develop simple games or serious projects.

• Taught Flutter and mobile development.

• Gave courses about Unity.

Co-Founder — Sep 2022 - Apr 2023
Vindact — *Hammamet, Tunisia*

• Led development on a puzzle video game project.

• Worked on some react projects.

Unity Developer — May 2022 - Jun 2023
Freelance — *Hammamet, Tunisia*

• Developed immersive VR experiences using Unity.

• Integrated advanced networking and multiplayer functionalities.

Unity Developer (Internship)
University Polytechnic Hauts-De-France
- Designed and implemented a smart NPC for a metaverse application using Unity.
- LLM API integration.
- Data structures and algorithms.

Feb 2023 - Jul 2023
Hammamet, Tunisia, Remote

Unity Developer (Internship)
Cube 3d Technology
- Designed and developed a fully immersive virtual reality game, from concept to execution.

July 2022 - August 2022
Ariana, Tunisia

Unity Developer (Internship)
Tuntales Interactive
- Designed and launched a hyper-casual mobile game.
- Deployement of the application to the stores.

Jul 2021 - Aug 2021
Tunis, Tunisia

Unity Developer (Internship)
Cube 3d Technology
- Developed an interactive multiplayer game with cross-platform compatibility for both VR and PC.
- Used nodejs and socketio to create multiplayer servers.

Jan 2020 - Jul 2020
Ariana, Tunisia

Unity Developer (Internship)
Orange Tunisia
- Created an innovative fitness game using embedded systems and VR technology to promote home exercise.

Jul 2019 - Oct 2019
Lac, Tunisia

EDUCATION

Higher Institute of Applied Sciences and Technology of Sousse
Software Engineering diploma

Sousse, Tunisia
2020 - 2023

Higher Institute of Multimedia Arts of Manouba
Bachelor of Video Game Development

Manouba, Tunisia
2017 - 2020

PROJECTS

Vecos (Unity)
Cross-platform Metaverse Creation System
- Custom avatars, multiplayer, Photon voice chat.
- Object sync, Addressables for updates, Ubuntu servers.
- Integrated XR/Pico SDKs, no-code animations/events, editor tools.
- Implement and update SDK
- GitLab for version control.

SkyDive IO (Unity)
Hyper-casual Racing Game
- Responsive UI, bot algorithms, Singleton pattern.
- Git for version control.

Giant Push (Unity)
Hyper-casual Action Game
- Enemy AI, infinite levels, analytics/ad campaigns.
- Deployed and published to Google Play Store.
- Setup tests and conduct A/B testing.

Dizzy Ball (Unity)
Casual Game
- Power-ups, shop system, Singleton pattern, Git.

Split (Unity)
Puzzle Game

• Shaders, gameplay systems, GitLab.

Unity Screen Sharing (Unity, NodeJS)
Screen Sharing for Multiplayer
• Socket manager, scalable Node.js server, GitHub.

ERP Application (Flutter)
ERP System for Business Management

Mylocation (Android)
Location-sharing App (Java)

Vera (Unity)
VR Cycling Game with Embedded Systems
• Arduino integration, VR optimization (baking, LOD).

LANGUAGES

Arabic(Native), **French**(bilingual), **English**(Fluent)

JAMS AND INCUBATIONS

• Participated in **Global Game Jam** (2017, 2018, 2020, 2022), developing creative games under time constraints alongside global teams.

• Competed in **Coding Land Manouba**, February 2018, a national coding competition.

• Selected for the **Makers Factory** Incubation and Acceleration Program in Tunisia.

• Participated in the **LEVEL1** Incubation and Acceleration Program in Tunisia.