

Alexandros Kapretsos

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PROFESSIONAL SUMMARY

Systems-focused Software Engineer with 3+ years of self-directed experience. Specialized in C/C++ memory management and game logic, now pivoting to Full-stack/Backend web architectures. Proven track record of open-source contributions and performance optimisation.

PROJECTS

[Parin Game Engine](#) | Project Lead | C/C++, D, Bash | 76+ GitHub Stars

- Developed a lightweight, high-performance 2D game engine focused on memory efficiency.
- Optimised data structures to handle allocations, resulting in 2X better performance than standard solutions.
- Maintained a public API used by a niche community, managing feature requests and bug reports.
- Collaborated with other projects to provide common implementations.

[Joka No-GC Utility Library](#) | Project Lead | C, D, Bash | 25+ GitHub Stars

- Developed a custom standard library emphasizing low latency and safe memory management.
- Implemented an arena and tracking allocator to solve common memory issues.

[Microui-d](#) | Project Lead | D | 14+ GitHub Stars

- Ported and optimized a lightweight UI C library to the D language, focusing on zero allocation.
- Enabled seamless integration for game engines and embedded systems by providing a dependency-free system.

[Portfolio Website](#) | Project Lead | PHP, SQLite, Nginx, HTML, CSS | Private

- Designed and deployed a personal portfolio site using PHP and SQLite, served via Nginx on a VPS.
- Implemented a contact form with server-side validation and persistent message storage using SQLite.

Open Source Contributions

Maintainer | [dlang-community/awesome-d](#)

- Oversee CI/CD pipelines and pull request reviews.

Contributor | [D programming language](#)

- Worked on the official website.
- Fixed compiler related issues.
- My work has been featured on [the official D blog](#).

Contributor | [schveiguy/raylib-d](#)

- Improved core library dependencies.
- Resolved critical issues related to templates.

TECHNICAL SKILLS

Languages | C, C++, C#, D, Java, Python, PHP, Go, Rust, R, Lua, GDScript, Haxe, SQL

Systems | WebAssembly, Memory Management, Pointer Arithmetic, Data Locality

Developer Tools | Git, GitHub Actions (CI/CD), GNU Make, Visual Studio Code, Valgrind, GDB

Libraries | WASI-P1, WASM4, Raylib, SDL2, Godot, SQLite

WORK EXPERIENCE

Event Staff / Support | Gameathlon Greece

GDAG

Jan 2025
Athens, Greece

- Facilitated high-traffic booth operations at Greece's largest gaming event.
- Demonstrated strong communication and problem-solving skills.

Open Source Maintainer | dlang-community

Dlang-community

• Oversee the awesome-d, managing contributions and pull requests from a global developer community.

Jan 2025 – Present

GitHub

EDUCATION

Degree

BSc in Economics | AUEB

Expected 2028

Athens, Greece