

Emmanouil 'Manos' Pitsidianakis – Systems Engineer

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EXPERIENCE

- 2023-05 - **now**: Virtualization and Emulation Engineer at Linaro.
Contributor in `rust-vmm` and QEMU.
- 2020-10 - 2023-05: Freelancing in Rust and C in Vouplanoktistos Private Company
Commercial AWS services, low-level database design, I/O optimizations.
- 2022-04 - 2022-10: Senior Software Engineer - Compiler Engineer (Rust, C) at wasmer.io.
- 2017-02 - 2017-10: Google Summer of Code with the QEMU project.

DELIVERIES

- 2023: Virtualization and Emulation Engineer at Linaro
 - Implemented VIRTIO *Sound* devices for QEMU in C and `rust-vmm` with the `vhost-user` protocol in Rust.
- 2022: Senior Software Engineer - Compiler Engineer (Rust, C) at wasmer.io
 - Fixed many bugs and created new release process for `wasmer 2.3.0` release.
 - Completed major refactor for the `wasmer` runtime, added memory safe API, added cross-compilation to native executable support for `wasmer 3.0.0` release.
- 2020 - 2023-05: Freelancing in Rust and C
 - custom `sqlite3` VFS in Rust for lightweight distributed databases.
 - rewrite of unsafe C library `libsqlfs` in safe Rust.
 - Full POSIX compatible FUSE filesystem with `sqlite3` backend in Rust.
- 2017: Google Summer of Code with QEMU project: Implementing I/O throttling and write notifiers into filter Block Drivers
 - Worked on a large C codebase with OOP architecture. Followed QEMU's open source development process. Reviewed patches from fellow contributors.
 - Refactored the QEMU block layer driver interface before implementing the new driver interface.

SKILLS

- Very strong command of C, Rust, Python, SQL, T_EX, Haskell, Ocaml, C++, SWI-Prolog.
- Strong knowledge of `git`, `gdb`, `rr`, `cargo`, `make`, POSIX `sh` scripting.
- Knowledge of Compiler theory and implementation, Linux Kernel workings, Virtualisation, VIRTIO, Network protocols, email protocols.
- 15+ years daily use of Unix-like Oses (Debian Linux and OpenBSD).

EDUCATION

Athens Polytechnic University
Electrical Engineering diploma equivalent to Bachelor and Masters (2013 - *paused for work*)
Grade average 8.30/10

Majors

Software Engineering (*Compilers, ProgLang Theory {I,II}, Advanced Database Theory*)
Computer Systems (*Advanced Microcomputers, {Embedded, Distributed} Systems, Advanced OS Theory*)
Mathematics (*Stochastic Systems, Mathematical Logic, {Graph, Number} Theory*)

Commons

- Volunteered in my university's library and created its IT system from scratch.
- Volunteered in my university's FOSS student community.

Values

- Supporter and user of Free Software.
- Enthusiastic problem solver.

Communication

Fluent in Greek (Native) and English (C2 level formerly CPE by Cambridge University and ECPE by Michigan University).