

## Manos Pitsidianakis

Athens, Greece

manos@pitsidianak.is

<https://github.com/epilys>

<https://pitsidianak.is> Blog: <https://nessuent.net/>

April 25, 1995

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### EXPERIENCE

- (2021-**now**) Freelancing in Rust and C.
- (April 2022-September 2022) - Senior Software Engineer - Compiler Engineer (Rust, C) at wasmer.io.
- (Feb 2017 - Sep 2017) Google Summer of Code with QEMU project: Implementing I/O throttling and write notifiers into filter Block Drivers.
- (2016 - **now**) Creator and maintainer of open source projects.
- (2013-2020) Volunteered as systems administrator, software developer and librarian for my university's department library.

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### DELIVERIES - ACHIEVEMENTS

- (April 2022-September 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.
- (2021-**now**) Freelancing in Rust and C Some of client projects:
  - custom DB journaling in Rust.
  - custom `sqlite3` VFS in Rust.
  - distributed write-ahead log (WAL) on Raft and distributed write locks with quorum in Rust.
  - many rewrites of unsafe C libraries in documented, tested and idiomatic Rust.
  - extended existing C code with additions such as adding modular structures for dynamic configuration on runtime.
  - Rust automatic codegen from postgresql schemata for type safe, memory safe queries, inserts and deletes in client's codebase.
  - Full POSIX compatible FUSE filesystem with database backend in Rust.
- (Feb 2017 - Sep 2017) Google Summer of Code with QEMU project: Implementing I/O throttling and write notifiers into filter Block Drivers  
<https://summerofcode.withgoogle.com/archive/2017/projects/4532831443222528/>
  - Worked on a large C codebase.
  - Held weekly meetings to discuss tasks and results with mentors Kevin Wolf, Stefan Hajnoczi and Alberto Garcia.
  - Refactored the QEMU block layer driver interface before implementing the new drivers.
  - Followed QEMU's open source development process of email git patch submission on the `qemu` and `qemu-block` mailing lists.
  - Reviewed patches from fellow contributors.
- (2016 - **now**) Creator and maintainer of open source projects  
Maintain two terminal tools written in Rust: `meli`, email client  
<https://github.com/meli/meli> and `bb`, top-like process viewer  
<https://github.com/epilys/bb>. Over 761,348 downloads in `crates.io`.

- Implemented IMAP, SMTP, JMAP and other IETF protocols from scratch by studying the official RFCs for `meli`.
  - Wrote text terminal interfaces by writing ANSI standard user interface code for both `meli` and `bb`.
  - implemented `xterm` compatible terminal emulator for use inside `meli` (terminal inside a terminal).
- (2013-2020) Volunteered as systems administrator, software developer and librarian for my university's department library.  
Developed and transitioned from paper to a full-stack system of book lending, acquisitions, collections and logging <https://lib.ece.ntua.gr/>.
    - Set up LDAP for library staff and used it for authentication for all library software (email, lending, wi-fi access points etc).
    - Set up the library's codebase on a self hosted git server using `gitea` and its bug tracking system.
    - Designed separate administrative and user-facing tools for book lending from scratch in `django` and `python3`.
    - Designed an automated query and lending extension email system for users in `python3`.
    - Designed a user support tickets email system in `python3`.
    - Designed an inventory and cataloguing system with barcodes. Checking inventory duration went from 3 days to a few hours.

## PROGRAMMING SKILLS

- Expert in C, Rust, Python, SQL,  $\text{\TeX}$ .
- Fluency with Haskell, Ocaml, C++, SWI-Prolog.
- Fluent use of `gdb` and `rr`, `cargo`, `make`, POSIX `sh` scripting.
- Knowledge of Compiler theory and implementation, Linux Kernel workings, Virtualization, Network protocols, email protocols.
- Expert in terminal `git` workflows.
- 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 FOSS student community (now defunct).
- Created and maintain a discussion forum/link aggregator community at <https://sic.pm>. The codebase is free software and located at <https://github.com/epilys/sic>.
- Maintain technical blog about my programming work at <https://nessuent.net/>.

## Personality

- Supporter and user of Free Software.
- Values communication and collaboration.
- Enthusiastic problem solver.

## Communication

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