

# ANAS ELGARHY

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## SUMMARY

Software engineer with 7+ years of experience, specializing in C, C++, Rust, Python, Java, and Jakarta EE. Proficient in Actix, FastAPI, Spring Boot, Git, Docker, and Nix. Deep expertise in Linux (Arch, NixOS, Gentoo) with a strong focus on low-level system details and assembly-level optimization. Passionate open-source contributor with a strong commitment to the Linux and tech communities. Skilled in building innovative solutions and adapting to new technologies.

## EDUCATION

### Egyptian E-Learning University

Bachelor of Information Technology

Dokki, Egypt

Jul. 2020 – Aug. 2024

### Beni-Suef University

Bachelor of Computer Science

Beni-Suef, Egypt

Oct. 2020 – Aug. 2024

## EXPERIENCE

### Software Developer

Raya Information Technology

Nov 2024 – Present

6th of October City, Egypt

- Developing and maintaining the Transaction Middleware for our banking clients using Jakarta EE
- Collaborated directly with banking clients to deliver prompt support, critical bug fixes, and feature enhancements.

### Software Engineer

Dragons Bootcamp LLC

Apr 2024 – Nov 2024

Wyoming, United States (Remote)

- Developed a REST APIs using Rust with Actix framework and PostgreSQL to store data from learning management systems
- Explored ways to improve our learning platform by using state-of-the-art artificial intelligence

### Software Engineer (Intern)

LevelUp ESG™

Apr 2024 – Jun 2024

City Of London, England, United Kingdom (Remote)

- Designed the architecture for the PDF generation subsystem, improving document processing efficiency
- Laid the foundation for performance optimization, resulting in improved system responsiveness

### Software Engineer (Intern)

Dragons Bootcamp LLC

May 2023 – Dec 2023

Wyoming, United States (Remote)

- Assisted in developing the roadmap for Java-based backend programs, aligning with project goals and timelines
- Developed a full-stack web application using Spring Boot, PostgreSQL, and Docker

## PROJECTS

**aarty** — Mini framework to render images in the terminals/ttys | *Image-rs, Rust, Just*

October 2022 – Present

**lqth** — Simple but blazingly fast screenshot utility | *Rust, Just, X11*

December 2023 – Present

**todo2** — More advanced version of Rust's todo! macro | *Rust, Just*

September 2023 – Present

**Ayah** — plugin that displays verses from the Qur'an to Muslim developers | *Java, Gradle*

Augusts 2022 – Present

**jqca** — Simple java wrapper library for alquran-cloud API | *Java, Maven, Junit, Jackson*

July 2022 – Present

**jls** — Modern alternative to GNU/lis utility | *Java, Maven*

June 2022 – January 2023

**jpwd** — Modern alternative to GNU/pwd utility | *Java, Maven*

June 2022 – July 2023

**JColorfulConsole** — Write a colorful text to the console | *Java, Maven*

March 2022 – September 2023

**pinterest-login** — Login to Pinterest from rust | *Rust, Just*

September 2022 – Present

## VOLUNTEERING

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### Open Source Developer

Jan 2017 – Present

[github.com/0x61nas](https://github.com/0x61nas)

Hybrid

- **image-rs**: use the built-in methods to convert the bytes between different representations [#2071](#)
- **cargo-bundle**: create a Linux module to improve the code structure [#130](#)
- **ockam**: show interactive menu to select one or more TCP intent when user doesn't specify [#6544](#)
- **ockam**: before sending the req to delete the TCP (outlet, inlet, listener) check that the target exists [#6553](#)
- **ockam**: support JSON output in the show subcommand [#6325](#)
- **halp**: add the support for custom URLs [#58](#)
- **halp**: refactor the config system [#62](#)
- **gpg-tui**: upgrade clap from v3 to v4 [#56](#)
- And [more...](#)

### Nixpkgs maintainer

Jun 2024 – Present

[github.com/NixOS](https://github.com/NixOS)

Remote

- The main maintainer for *flawz* package [#312751](#)
- The main maintainer for *tabiew* package [#315711](#)
- The main maintainer for *rustmission* package [#322474](#)
- And more [PRs](#), and [reviews](#).

## TECHNICAL SKILLS

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**Languages**: Rust, C, C++, Java, Python, SQL (Postgres), Bash, Lua, X86Assembly-Intel syntax, Java Script

**Frameworks**: Actix, Rocket, PyO3, JUnit, FastAPI, Spring Boot, Lombok, Yew, JPA, HTMX, Jackson, Image-rs, Serde, Clap, OpenGL, raylib, SOAP, Jakarta EE

**Tools**: Git, Cargo, Nix, Maven, Postgres, Just, GDB,  $\text{\LaTeX}$ , Make, QEMU, Docker, GitHub, GitHub Actions, GitLab, Vim, Helix, Z-Shell, Neovim, Tmux, Arch Linux, NixOS, PyCharm, IntelliJ, Cachix, HTML, CSS, GCP, Ubuntu, Debian, SSH, Sqlite, Clang, GCC, NASM, FASM, GnuPG, FFMPEG, farbfeld, Wireshark, JBoss, PlantUML

## INTERESTS

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**Low-Level Programming**: Passionate about working as close to the hardware as possible. Even with high-level abstractions, I always dive into the smallest details to understand how things work. I dislike black-box systems.

**Performance Optimization**: Dedicated to building high-performance, lightweight software and constantly learning new techniques to maximize efficiency.

**Linux Systems**: Advanced user of Arch Linux, Gentoo, and NixOS. I enjoy exploring and customizing Linux systems in my free time.

**Programming Languages**: Fascinated by exploring innovative ways to communicate with computers. I'm continuously refining my vision of the perfect programming language, waiting for the right moment to bring it to life.

**Reverse Engineering**: Well... nothing is closed-source if you can read assembly ;)

## LANGUAGES

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**English**: Professional

**Arabic**: Native