# Advait Pandharpurkar

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Passionate developer from pune with special interest in rust, systems software, robotics and distributed systems.

#### Education

Degree	Institute/Board	CGPA	Year
B.E Computer Engineering	Ajeenkya D. Y. Patil School of Engineering, Pune	7.3 (Current)	2021-Present

Activities: Google DSC'23 Programming Lead, <u>ByteWatch</u> Leader, Vice President (ACE), Student Coordinator(RIEC).

## Experience

#### · RigBetel Labs LLP

**Software Engineering Development - Intern** 

- Independently Build, **Robonet-rs(Rust Version)** and **Robonet**, a suite of Networking tools for RBL Robots. (Pi and NUC Based).
- Rewrote **TortoiseBot Firmware in Rust**, using rclrs and ros2\_rust. a wrapper for wpa\_supplicant, making the /cmd\_vel calls 250% faster.
- Wrote a topic in rust that gives realtime network health info on a I2C display through a robonet-daemon.
- Built a WebRTC Based Robot TeleOp and Multi Video channel middleware for ROS2 based robots.
- Worked on controlling remote robots, using **Zenoh** and **MQTT** for **ROS2**.
- Wrote an EncoderManager Library in **Embedded C++** for getting real time ticks of Motors.

#### · Vanderlande (A Toyota Logistics Company)

#### Software Engineer - Intern

present (AUG-2024)

Pune, (On-site)

(DEC23-JUL24)

Pune, (On-site)

- Joined as a Software Engineering Intern for the W-PLAT team violet, Worked on writing a gRPC implementation for cf-ref modules/ITMs.
- Worked on setting up a Local **CaRE**(for W-PLAT) recipe simulator, and shadowed a senior tester.
- Worked on **clearing-flow** in Warehouse Platform, and fixed the Pact between clearing flow and GTPs.

## Key Projects

\* <u>MCServer</u>- [100+ GitHub Stars] Command Line Tool to build, generate and deploy Minecraft Servers on GCP.

- Currently Being re-written in Rust. Allows you to deploy and customize minecraft server with specific req.
- Fully Deployable MCServer on GCP-Shell or GNU/Linux based computer with 250+ supported servers.
- Leading a passionate discord community of **300+** members with 10+ developers making the project better.
- \* Ram-Snapper- USB-Deployable Ram Dump Acquisition and analysis tool.
  - Lead a team of developers for the Kavach Hackathon.
  - Built a Cross Platform Ram Dump Acquisition tool using the *Rust* Programming Language.
- \* Pastry-Crust- A Complete (Backend+Frontend) of PasteBin Type Website
  - Used Actix-Web as the Web Framework to build the backend services.
  - TailwindCSS, and rusqlite database used to store the text data.
- \* <u>MDM</u>- A Blazingly fast **Git** Based *Minimal Diary Manager*.
  - Command Line Application to store text based data synced with a github repository, used libgit2.
  - On each change, it syncs the diff with the git repository with a custom message, written in *Rust*.

## Technical Skills

- Programming: Rust, C/C++, Python, Embedded C, Bash & POSIX Shell Scripting, Go, Zig.
- Databases and related tools: RocksDB, SurrealDB, Postgresql, rusqlite(sqlite), Yaml, Toml & Json.
- Libraries/Frameworks: Actix-web, Tokio-rs, Rocket, ZStd, AES, Vulkan & OpenGL.
- Others: MicroControllers and SBC's, GNU/Linux, Docker, Kubernetes, VCS(Git), Game Engine Dev.

## Honors & Awards

- 1st Runner up in Kavach National Cyber Security Hackathon, @ AMC BANGALORE.
- 2nd Runner up in MKCCC's Competitive Coding Competition @ CUMMINS PUNE.
- 2nd Prize in ADYPSOE's PBL Competition (Built Spyder Net). @ Lohegaon SOE Pune.
- 2 Times Government Scholarship Examination Scholar. (4th and 206th Rank respectively).

# Interests

- Making Projects & Management, Organizing Events, Chess, <u>WM Ricing</u>, Public Speaking.
- Producing Software and streaming the entire process on my <u>YouTube</u> channel.