Visruth Thayyil Vijind

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Education

Amrita Vishwa Vidyapeetham — Coimbatore, India
Bachelor of Technology in Computer Science, Minor in Automation in Robotics — *Aug. 2024 – Present*

Technical Skills

Languages: C/C++,Zig, Rust, Java, Python, Go, JavaScript, HTML/CSS
Frameworks: React, NextJS, Electron
Developer Tools: Git, Neovim, Make, Figma, Godot, Linux
Libraries: Raylib, pygame

Experience

Live-in-Labs® — May 2025 – Aug 2025
Student Researcher — *Coimbatore, India*

- Collaborated with a multidisciplinary team to conduct extensive field research in coastal Tamil Nadu, focusing on water accessibility challenges.
- Performed quantitative and qualitative data collection through community interviews and onsite measurements to identify resource gaps.
- Synthesized field observations and raw data into a comprehensive research paper, proposing evidence-based solutions for the community.

Projects

CropChaos | *C, Raylib, Makefile* — July 2024 – Present

- Architecting a 2D game engine from scratch using pure C to master low-level memory management .
- Designing a custom Entity Component System (ECS) to decouple data from logic and optimize cache locality.
- Established a modular project structure using Makefiles to manage compilation stages and dependencies without heavy IDE overhead.
- Integrated Raylib for rendering while manually implementing core game loops and state management.

Shelly | *Go, React, WebSockets, Xterm JS, PTY* — July 2024 – Present

- Developed a web-based remote shell application enabling SSH-like access via standard HTTP protocols.
- Engineered a high-performance backend in Go, utilizing Goroutines to handle concurrent user sessions efficiently.
- Implemented bi-directional communication using WebSockets to ensure low-latency, real-time command execution.
- Built a responsive terminal UI in React to render shell output and capture user input seamlessly.

PyDungeon | *Python* — Sep 2022 – Dec 2023

- Developed a text-based RPG dungeon crawler relying solely on the Python Standard Library to strictly test core language proficiency.
- Utilized Object-Oriented Programming (OOP) principles to design scalable classes for player inventory, enemies, and world generation.
- Implemented complex game logic, including turn-based combat systems and random event generation.
- Focused on writing clean, idiomatic Python code to ensure readability and maintainability.