

# Deeraj Chowdary

[chowdary.s.deeraj@gmail.com](mailto:chowdary.s.deeraj@gmail.com) | [portfolio](#) | [github.com/rufavean](https://github.com/rufavean)

## Education

**Manipal University** – B.Tech in Computer Science & Engineering (Artificial Intelligence & Machine Learning) Present

## Projects

### Calru - Math Interpreter

[github.com/rufavean/calru](https://github.com/rufavean/calru)

- a custom interpreted language supporting a range of arithmetic operations and features.
- Implemented essential interpreter components, including error checking, expression evaluation, and a command-line interface (CLI).
- Designed and executed 20+ comprehensive tests to thoroughly validate each phase of the interpreter, ensuring reliable and accurate execution.
- Actively expanding the language to support advanced mathematical operations and complex syntax parsing.

### Medicontrol - Medicine Dispenser for the Elderly

[medicontrol.app](https://medicontrol.app)

- Conducted requirement analysis and integrated Firebase for real-time data sync between the web app and Raspberry Pi 4.
- Implemented sliding doors powered by SG90 motors and controlled via limit switches for precise operation.
- Developed a web application enabling doctors to manage multiple dispensers through a centralized dashboard.
- Integrated a display for user interaction, providing real-time information on medication schedules, dosage, and dispensing status.

### Cognisyn - A Code Generation Plugin in Terminal

[github.com/rufavean/cognisyn](https://github.com/rufavean/cognisyn)

- Led the development of a code generation plugin for terminal environments, managing the project workflow to ensure efficient progress.
- Built the plugin using the OpenAI API, leveraging advanced technology to enhance functionality and performance.
- Developed a user-friendly website to improve accessibility and the overall user experience.

## Volunteer Experience

### Contributor, Rustfmt (Rust Language Code Formatter)

[pull request](#)

- Fixed a bug in Rustfmt's error messaging by including precise file paths and details, added a new test, and refactored existing tests to resolve conflicts, improving error reporting accuracy.

### Contributor, PAL-Tek

[pal-tek.com](https://pal-tek.com)

- Collaborated with core developers through meetings to advance the language's development.
- Established a content automation system to streamline workflows.
- Designed and developed a comprehensive website for the programming language, enhancing its online presence and user engagement

## Skills

**Languages** : Rust, C, GFORTH, Python, Javascript, Bash

**Libraries & Tools** : Git , Tensorflow, React.js, Vue.js

**Technical Skills** : Natural Language Processing , Shell Scripting, Compiler Construction, Cli Tools in Linux