

# UJJWAL KALA

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## Experience

### Plone Foundation

Remote

#### Open Source Contributor

February 2024 - Present

- Led feature development and bug fixes through **7 accepted PRs** across 4 core repositories, delivering 3 new features and 4 critical bug fixes which underwent rigorous code review by core maintainers to ensure quality assurance.
- Authored a production-grade documentation template that cut initial setup time for technical documentation by **80%**. Co-presented this feature to an international audience at **World Plone Day 2024**.
- Strengthened the core **plone.api** library by building new utility functions that eliminated boilerplate code. Improved continuous integration pipeline by fixing failing builds for the documentation engine

### Aveti Learning Pvt Ltd

Bhubaneswar, Odisha

#### Software Development Intern

August 2023 - February 2024

- Led API development for **10+ RESTful APIs** in within a microservices architecture, achieving **95% uptime** and directly improving core platform features.
- Drove performance optimization by optimizing over **5 gRPC microservices**, successfully cutting inter-service communication latency by **30%**.
- Reduced operational costs by **20%** by designing and implementing a serverless logging workflow using **AWS Lambda**.
- Ensured high reliability by managing zero-downtime database migrations with Alembic.

## Projects

### rayPong | C/C++, Raylib



- Led a solo game development hobby project in form of Pong clone from scratch in **C**, focusing on low-latency performance by leveraging hardware-accelerated rendering and a deterministic physics engine.
- Designed and implemented core game architecture, including a state machine for screen management and an adaptive AI opponent that adjusts its difficulty based on player performance.

### kadenceTextEditor | C, ASCII



- Built a high-performance, dependency-free text editor from the **scratch** in **C**, directly manipulating low-level terminal I/O for maximum efficiency.
- Implemented core editor functionalities including efficient buffer management for text manipulation and optimized cursor movement algorithms. Implemented features from the famous editor **Vim**

### Chowkidaar | Python, Discord.py, REST APIs



- Developed and deployed a reliable Discord bot to automate progress tracking for a 25-day coding challenge integrating API of coding platforms, serving approximately **100 participants** daily.
- Engineered the bot to integrate with coding platform APIs, automatically fetching and verifying user submissions to maintain challenge integrity.
- Ensured **zero downtime** throughout the multi-week event, providing consistent and accurate daily updates to motivate participants.

## Technical Skills

**Languages:** Python, C, C++, SQL, Bash, Javascript, TypeScript

**Frameworks & Libraries:** Zope, Plone, Raylib

**Tools:** Git/Vim, AWS Lambda, NGINX, LAMP, Alembic, GitHub Actions, MongoDB, PostgreSQL, Linux.

**Concepts:** OOP, Computer Networks, Database Design, API Design, RESTful Principles, Version Control, Unit Testing, Integration Testing, Microservices Architecture

## Achievements and Talks

### Programming Society IIIT Bhubaneswar

- Appointed as the **Joint Lead** of the Programming Society for the academic year 2025-26.

### Talks

- World Plone Day 2025** (10th April 2025) - Delivered a **talk** on authored feature along with co-author *Steve Piercy* on the occasion of titled **Triple D: Documentation Driven Development - A Panel Discussion**.

## Education

### IIIT Bhubaneswar

Bhubaneswar, Odisha

Bachelor of Technology in **Information Technology**

August 2023 - June 2027

CGPA: 8.37 (till 4th Semester)