

ABHIJIT SWAIN

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PROFESSIONAL SUMMARY

Computer Applications graduate with strong fundamentals in C/C++, object-oriented design, and data structures, applied through hands-on full-stack and real-time systems development (JavaScript/TypeScript, Node.js, React). Experienced building event-driven, concurrent applications (WebRTC/Socket.IO) with attention to performance, modular architecture, and clean SDLC practices. Comfortable working close to the system layer (Linux environments, Docker, Git-based CI/CD) and quick to pick up new platforms and protocols. Open-source contributor with a collaborative, problem-solving approach to engineering.

TECHNICAL SKILLS

Languages: C++, C, JavaScript (ES6+), TypeScript, Python

CS Fundamentals: Object-Oriented Programming, Data Structures & Algorithms, Operating System Concepts, Multithreading/Concurrency Basics

Systems & Platforms: Linux environments, Git version control, Docker, Kubernetes (EKS), CI/CD (GitHub Actions, GitLab CI, CircleCI)

Real-Time & Networking: WebRTC, Socket.IO, RESTful API design, event-driven architecture, microservices

Web & Backend: React.js, Node.js, Express.js, MongoDB, PostgreSQL, RBAC/JWT authentication

Cloud & Monitoring: AWS (EC2, S3, Lambda, API Gateway), Prometheus, Grafana, ELK Stack

KEY PROJECTS

EchoMeet — Real-Time Video Conferencing Platform

Personal Project | 2024

- Engineered a peer-to-peer real-time video conferencing system using WebRTC and Socket.IO with Node.js/Express, handling multiple concurrent sessions through an event-driven, low-latency architecture.
- Designed session-management and signaling logic in C-like modular fashion (clear state machines for call setup, teardown, and reconnection), applying OOP and data-structure fundamentals to manage concurrent client state.
- Built support for screen sharing and in-app messaging; structured the codebase for maintainability with Git-based version control and CI/CD-aligned delivery workflows.

WanderLust — Full-Stack Property Listing Platform

Personal Project | 2024

- Developed a full-stack MERN application with secure JWT-based authentication and role-based access control (RBAC), emphasizing clean OOP design and RESTful API principles.
- Implemented dynamic CRUD operations with robust frontend-backend integration; containerized with Docker and deployed via a GitHub Actions CI/CD pipeline.
- Maintained code quality through unit testing, debugging cycles, and modular architecture across iterative feature development.

Anigram — Open Source Contribution

GitHub | 2024

- Identified and resolved critical bugs to improve application stability; implemented new frontend rendering features collaborating with a distributed team via pull requests and code review.
- Documented recurring error patterns and reusable resolution approaches, contributing to long-term codebase maintainability.

EDUCATION

Master of Computer Applications (MCA)

May 2026

Sruti Academy of Management And Technology, Bhubaneswar

Bachelor of Computer Applications (BCA)

May 2024

Regional College Of Management, Bhubaneswar

PROFESSIONAL DEVELOPMENT

- Software Engineering Fundamentals — OOP, data structures & algorithms, SDLC best practices, applied across full-stack and real-time systems projects.
- Full Stack & Cloud — MERN stack, RESTful APIs, Docker, Kubernetes fundamentals, CI/CD (GitHub Actions), AWS basics (EC2, S3, Lambda).
- Open Source Contributor — Active GitHub contributor with experience in distributed workflows, PR reviews, and issue resolution.