



# Rushikesh Kadepurkar

COMPUTER SCIENCE  
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GITHUB

LINKEDIN

*Third-year CSE undergraduate at COEP Technological University with strong expertise in systems programming, full-stack web development, and artificial intelligence. Experienced in building end-to-end software solutions from low-level C/C++ algorithms to containerized web applications, with hands-on proficiency in AI/ML and deep learning. Seeking challenging engineering roles to drive innovation and create measurable impact.*

## SKILLS

### Languages

C, C++, Python, JavaScript, Java,  
HTML, CSS

### Web / Backend

React.js, Node.js, Express.js, Next.js,  
REST APIs, WebSockets

### Databases & Infra

MySQL, MongoDB, Redis, Prisma

### AI / ML

NLP, ML, LLMs, RAG, Agentic AI

### Tools

Git, Docker

## EXPERIENCE

### Summer Intern

Jun - Aug 2025

*Indian Institute of Technology, Jammu*

Designed and fine-tuned intelligent agents and AI automation workflows. Built and deployed scalable LLM-based solutions for real-world applications, focusing on performance optimization.

LLMS AGENTIC AI FINE-TUNING AI AUTOMATION

## ACADEMIC PROJECTS

### SwiftTalk — Real-Time Chat Messaging Platform

Sep 2025 - Present

React · Node.js · Express.js · Socket.IO · MySQL · Prisma · Redis ·  
JWT · Docker · Langchain

A full-stack real-time messaging platform featuring instant messaging, AI-powered smart replies, task management, file sharing, push notifications, JWT authentication, and group conversations.

- Real-Time Messaging
- WebSocket Communication
- AI Smart Replies and summaries
- Task Management
- File Sharing
- JWT + OTP Authentication
- Redis Caching
- Langchain powered AI chatbot integration
- Push Notifications
- Docker Compose

## NAT Traversal — UDP Hole Punching over QUIC

Mar - Apr 2026

[Python](#) · [aioquic](#) · [UDP](#) · [Socket Programming](#) · [Computer Networking](#) · [Docker](#)

A peer-to-peer networking project implementing NAT traversal using UDP hole punching over QUIC to establish low-latency direct communication between clients behind network address translation.

- NAT Classification
- QUIC / aioquic
- WebSocket Relay Fallback
- Live Metrics Dashboard
- UDP Hole Punching
- O-RTT Session Resumption
- TLS 1.3 Authentication

## File Compression using Huffman Coding

Sep - Oct 2024

[C++](#) · [Data Structures](#) · [Algorithms](#) · [Huffman Coding](#) · [Priority Queues](#)

A lossless file compression utility implementing Huffman coding with binary tree algorithms for efficient file encoding and decoding.

- BWT & MTF Encoding
- Lossless Decompression
- WebAssembly Integration
- ~80% Compression Ratio
- Huffman Compression
- Modular C++ Codebase
- React-based Frontend

## Raylib Chess Game

Dec 2024

[C++](#) · [Raylib](#) · [Game Development](#) · [Graphics Programming](#)

A desktop chess game built with Raylib featuring custom graphics, move validation, chess piece logic, and interactive gameplay interface.

- Human vs Human Mode
- Chess Rules Enforcement
- FEN & Algebraic Parsing
- Human vs Stockfish Engine
- Move Validation System
- Sound Effects & Custom Fonts

## EDUCATION

### B.Tech — Computer Science and Engineering

COEP Technological University · Pune, Maharashtra

7.83 / 10.0

Expected 2027

## LANGUAGES

English — Fluent

Hindi — Fluent

Marathi — Native

## CERTIFICATIONS

Intermediate to Advanced Python

Udemy · 2024