

# Ayush Pathak

+91 9316568042 | [22bds044@iitdwd.ac.in](mailto:22bds044@iitdwd.ac.in) | [LinkedIn](#) | [GitHub](#)

## EDUCATION

### Indian Institute of Information Technology Dharwad

Bachelor of Technology in Data Science and Artificial Intelligence

Dharwad, IN

June 2022 – May 2026

## EXPERIENCE

### Software Developer Intern

Oct 2025 – Present

Remote , IN

VideoSDK

- Designing and developing scalable real-time communication products powered by **WebRTC**, enabling seamless audio/video interactions for global users.
- Working across the full stack with **React.js**, **Node.js**, and WebRTC protocols, building high-performance APIs and optimizing backend services.
- Gaining expertise in real-time streaming and large-scale distributed systems while collaborating with a cross-functional team to deliver robust and intuitive applications.

### Software Developer Intern

Jun 2025 – July 2025

Bangalore, IN

Dentsu

- Developed NLQ-based AI chatbots using OpenAI GPT-4o and Snowflake Cortex, enabling SQL generation from natural language across **1–2B** daily data points for over **100** retailers.
- Built a full-stack monitoring dashboard using React.js, Express.js, and FastAPI, enabling real-time visibility into **2,000+** daily jobs, integrated with Snowflake via Python APIs.
- Enhanced RCA and observability, reducing job recrawls and conflict-driven delays by **35%**, improving SLA adherence during spikes of up to **1,611** job failures/day.

### Software Developer Intern

Aug 2024 – Sept 2024

Mumbai, IN

DataAstra

- Migrated **1000+** lines of legacy code to a modular TypeScript architecture, reducing runtime errors by **70%** and improving maintainability
- Implemented server-side pagination and query optimization in Node.js + MongoDB, cutting API response time from **1.8s** to **400ms**
- Built a custom React hook library for form and input state management, reducing repetitive boilerplate across **15+** components by **60%**

## PROJECTS

### • [Mail.ai](#)

Next.js, Prisma, PostgreSQL, Stripe, BullMQ, Redis, Groq SDK

- Developed an AI-powered bulk email platform with Groq-SDK for customizable templates and advanced personalization.
- Designed a scalable delivery system using Redis and BullMQ, achieving **40%** faster delivery and **99.9%** uptime.
- Created a subscription system with Stripe for usage-based pricing and automated billing for enterprise clients.

### • [AI Code Assistant](#)

Python, LangChain, OpenAI GPT-4, Pinecone, FastAPI, React

- Built an AI-powered code assistant supporting multiple programming languages, enabling developers to generate and improve code efficiently.
- Implemented a retrieval-augmented generation (RAG) pipeline with Pinecone for context-aware code suggestions from large codebases.
- Designed intelligent code review and suggestion features, reducing debugging time and improving overall code quality.

## ACHIEVEMENTS

- Solved **800+** problems across LeetCode, CodeChef, and GFG with expertise in dynamic programming and graph algorithms
- Achieved **Knight (1800+)** rating on LeetCode contests
- Secured **3-star** rating on CodeChef and **Pupil** rank on Codeforces
- Won a hackathon by developing a secure login system for IIIT staff

## TECHNICAL SKILLS

- Languages:** TypeScript, JavaScript, C++, C, SQL, Python
- Web Technologies:** HTML, CSS, Tailwind CSS
- Frameworks & Libraries:** React.js, Next.js, Express.js, Hono, Node.js, Prisma, NextAuth
- Databases:** PostgreSQL, MongoDB, Pinecone
- AI & Agentic Tools:** LangChain, AutoGen, OpenAI, LangServe, Pinecone, Vector Stores, RAG Pipelines, MCP Servers, Function Calling, Prompt Engineering