

# Ashirwad Singh

+91-8421933430 | [singhashirwad2003@gmail.com](mailto:singhashirwad2003@gmail.com) | [LinkedIn](#) | [GitHub](#) | [LeetCode](#)

## EDUCATION

### VIT Bhopal University

B.Tech in Computer Science (Cyber Security and Digital Forensics) **CGPA: 8.51**

Kothrikalan, MP

2022 – 2026

### RELIANCE FOUNDATION

Class XII (CBSE) **Percentage: 91.2%**

2021

### YAK PUBLIC SCHOOL

Class X (CBSE) **Percentage: 91.8%**

2019

## EXPERIENCE

### Maven Silicon – VLSI Design Internship

Jan 2025 – Mar 2025

Project: RISC-V ISA & RV32I 3-Stage Pipeline

- Engineered RTL submodules and integrated into a unified top module for a 32-bit **RISC-V** processor with a **3-stage pipeline** using **Verilog HDL**.
- Implemented **AMBA AHB** interface, controlling **htrans**, **hready**, **hresp**, **imaddr** & **dmaddr** signals for high-throughput memory transactions.
- Developed **interrupt logic** (EIRQ, TIRQ, SIRQ) and real-time performance counters; validated design robustness via Verilog testbenches.

## PROJECTS

### Dev-Finder [GitHub] [Deployed] [Video]

- Built tag-based room discovery app with **Next.js**, **NeonDB**, **Drizzle ORM**, supporting 15+ concurrent users across technology categories.
- Enabled real-time peer-to-peer screen sharing using **GetStream React SDK**, achieving 95% uptime with sub-100ms latency.
- Secured authentication with **NextAuth.js** and **JWT** tokens, managing sessions for 50+ registered developers.

### Chess Master [GitHub] [Video] [Deployed]

- Developed multiplayer chess platform using **Socket.IO**, **Node.js**, and **Express**, handling real-time gameplay with 99% event reliability.
- Implemented move validation using **chess.js** library with spectator mode, supporting 100+ concurrent games with real-time sync.
- Built move history navigation with session persistence, maintaining game state across browser refreshes with 95% retention rate.
- Added back/forward navigation of move history and seamless session resumption using persistent client state.

### Google Docs Clone [GitHub] [Video] [Deployed]

- Built collaborative text editor using **React**, **Quill.js**, and **Socket.IO**, supporting real-time editing for 15+ users.
- Implemented document persistence with **MongoDB**, 500ms auto-save achieving 99% data integrity.
- Developed **Express/Node.js REST APIs** with CRUD operations, handling 500+ daily requests with sub-200ms response time.

## TECHNICAL SKILLS

**Languages:** C++, TypeScript, JavaScript, SQL, Tailwind, HTML, CSS,

**Databases:** MongoDB, NeonDB, Redis, PostgreSQL, MySQL

**Frameworks & Libraries:** React, Next.js, Node.js, Express, Socket.IO, LangChain, chess.js

**ORMs & Auth:** Prisma, Drizzle ORM, NextAuth.js, JWT

**Dev Tools & Platforms:** Git, GitHub, Docker, AWS, Convex, Cypress, Stripe, VS Code

## ACCOMPLISHMENTS

**CodeForces** (Blagosloveniye): Max. **Rating** 1447 (Specialist); Global Ranks: 1617, 2310; solved 500+ Problems

**CodeChef** (ethant5698): Max. **Rating** 1900 (Peak 1912), 4 Coder; Global Ranks: 77, 426, 452

**LeetCode** (Ethan038): **Rating** 2161 (Guardian); Global Ranks: 86, 509, 886; solved 700+ Problems

## CERTIFICATIONS & EXTRACURRICULAR ACTIVITIES

**MongoDB Certified Associate Database Administrator**

Issued by MongoDB [Credly]

**MongoDB Certified Atlas Administrator**

Issued by MongoDB [Credly]

**Extracurricular Achievements:** State-Level Boxing Medalist (Gold, Bronze); National-Level Representative