

# Baltej Singh

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## EDUCATION

### Thapar University

Bachelor of Technology in Computer Science

Punjab, India

Aug. 2024 – May 2028

### DAV Public School

CBSE Senior Secondary Schooling

Punjab, India

May 2024

## TECHNICAL PROJECTS

### Mirage AR Showdown | *Express.js, React, LocAr.js, Firebase, Docker, Kubernetes, Three.js* Nov 2025 - present

- Lead Full-Stack Engineer — Production TypeScript 3D/AR game (React, Vite, Kubernetes), Built AR chest rendering with live GPS to enable location-based 3D interactions for a college-wide event.
- Handled 2,000 concurrent users via a Kubernetes deployment for high throughput and resilience; automated CI/CD pipelines enabled rapid rollback and live remediation.
- Used Firebase Realtime Database for low-latency storage and real-time state synchronization across clients.
- Served as Technical Lead — designed and implemented 3D/AR mechanics using three.js and locAR.js, overseeing integration, asset pipeline, and cross-device performance optimizations.

### Nodey — Cross-runtime Node.js + Python backend | *Docker, Docker-compose, Express.js, Flask* April 2025

- Built a cross-runtime backend combining Node.js and Python microservices running concurrently in containerized environments and synchronized via a central load balancer.
- Implemented microservice endpoints across Node.js and Python backends and designed routing logic through a central load balancer to expose a consistent API to clients.
- Developed an internal API to enable secure, inter-container communication between Node.js and Python services using Docker networking.

## ACHIEVEMENTS

### Runner Up at IIIT Nagpur Web3 Hackathon

October 2025

IIIT Nagpur

Nagpur, India

- Developed Dexilo — a decentralized B2B music-collab platform on the Internet Computer enabling team project management, IPFS audio uploads, NFT minting/trading with waveform visuals, automated royalties, and on-chain provenance.

### Finalist

February 2025

Thapar University

Patiala, India

- Secured Finalist spot among 3,000+ applicants at HackTU 2025, one of the North India's largest hackathon.

## EXPERIENCE

### Core Member & Mentor

September 2024 – Present

Creative Computing Society

Patiala, India

- Mentored 40+ juniors in WebDev fundamentals and DevOps practices, providing personalized guidance on technologies like React, Node.js, Containerization, Docker.
- Conducted 2 high-impact workshops on fullstack development and basic DevOps, attracting 200+ attendees each and fostering hands-on projects.

### Full Stack Developer

Sep 2025 – Nov 2025

Saturnalia, Thapar University

Patiala, India

- Contributed to the official Saturnalia website—a flagship platform for Thapar's largest annual techno fest—handling user registration, event scheduling, and live updates for 5,000+ attendees.
- Worked in a 23-person dev team using Git for collaboration, and ensured uptime during the event

## TECHNICAL SKILLS

**Languages:** TypeScript, JavaScript, Go, C/C++, SQL (Postgres & MySQL), HTML/CSS, Python

**Frameworks:** React, Node.js, Next.js, Flask, Express.js, Socket.io, Tailwind, Bootstrap, jQuery, Passport.js, Three.js

**Developer Tools:** Git, Docker, Kubernetes, Podman, VS Code, Postman, Supabase, NeoVim/Vim

**Libraries:** Pandas, NumPy, Matplotlib