

# SAIPREM KATKAM

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## SUMMARY

Full-Stack Web Developer with experience building web applications using React, TypeScript, Node.js, Express.js, and PostgreSQL. Built full-stack projects featuring REST APIs, authentication, real-time communication, payment integration, and AI-powered functionality. Also experienced in Unity and C# through a Unity Developer internship focused on gameplay systems, optimization, NPC mechanics, and visual effects.

## TECHNICAL SKILLS

**Programming Languages:** JavaScript, TypeScript, C#, Java, C++, Python

**Frontend Web Development:** HTML, CSS, React, Tailwind CSS, Redux Toolkit, Zustand, TanStack Query

**Backend & Databases:** Node.js, Express.js, REST APIs, PostgreSQL, Appwrite

**Game Development:** Unity, DOTween

**Tools & Platforms:** Git, GitHub, Postman

## EXPERIENCE

### Unity Developer Intern

Sherlock Studio

Oct 2024 – Feb 2025

Remote

- Increased FPS from **60 to 100+**, achieving approximately a **67% performance gain** on a PC horror game while resolving **15+ existing bugs**.
- Developed core **NPC character movement mechanics** and implemented the game's dialogue system using Unity and C#.
- Created particle effects for **8+ visual-novel-style cutscenes and cinematic sequences**, improving visual polish and player immersion. [Certificate](#)

## PROJECTS

### BookMyPitch – Full-Stack Sports Venue Booking Platform



- Built a full-stack sports venue booking platform with multi-parameter filtering and **Razorpay payments**, processing bookings in under **2 seconds**.
- Developed **20+ REST API endpoints** using Express.js and TypeScript with a Router → Controller → Service → Repository architecture.
- Implemented **PostgreSQL, Drizzle ORM, Zod, JWT, bcrypt, refresh-token rotation, rate limiting**, and role-based route protection.

### DrawItMatchIt – Real-Time Multiplayer Drawing Web Game



- Built a real-time multiplayer drawing game using **Appwrite WebSockets**, synchronizing player actions and game state with under **500 ms latency**.
- Integrated **Google Gemini AI** to evaluate drawings against reference images and generate similarity scores from **0–100** with personalized feedback.
- Developed a feature-rich drawing canvas and managed client state using **Zustand and TanStack Query**.

### Notelt – Notes Web Application



- Built a React notes application with **pin, archive, trash, restore**, and persistent storage using localStorage.
- Implemented **10+ reducer actions** with Context API and React Router for centralized state management and navigation.
- Added try-catch error handling and **useMemo optimization** to reduce unnecessary component re-renders.

### CrowdDash – Mobile Runner Game



- Built a mobile runner with **3-lane swipe movement**, enemy chases, **10+ modular level blocks**, and a dynamic health-gate system.
- Implemented event-driven gameplay using a centralized **GameManager**, haptics, coin economy, and **5+ unlockable persistent characters**.
- Developed mobile UI with **DOTween animations**, progress tracking, health indicators, and sound/haptics settings.

## EDUCATION

### Backstage Pass Institute of Gaming, Hyderabad

Bachelor of Science (Honours) in Computer Science and Game Development

2022 – 2026