Arya Sharma

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Summary

Full-Stack Developer skilled in **React, Node.js, and SQL/NoSQL,** building **production-ready, high-performance** applications**.** Strong foundation in **DSA, system design**, and **AI-integrated RAG** solutions**.**

Technical Skills

- **Languages:** JavaScript (ES6+), Java, SQL, HTML5, CSS3
- **Frontend:** React.js, Redux Toolkit, Tailwind CSS, Three.js (R3F), GSAP, Framer Motion, Lenis, Vite
- **Backend:** Node.js, Express.js, RESTful APIs, JWT Auth, RBAC (Role-Based Access Control)
- **AI Engineering:** LLM Integration (Gemini/OpenAI), RAG Architecture, Prompt Engineering, Vector Embeddings
- **Databases:** MongoDB (Atlas), PostgreSQL, MySQL
- **DevOps and Tools:** Git/GitHub, Docker, Vercel, Postman, Render, Payment Gateways (Razorpay/Stripe)
- **Core Fundamentals:** Data Structures and Algorithms, OOP, DBMS, OS, Computer Networks

Achievements and Certificates

- Solved **250+ DSA** problems across **[CodeChef]** | **[LeetCode]**
- Software Engineering **[HKUST]**, Agile Project Management **[Google]**, Coding Interview Prep **[Meta]**

Projects

Astra | Hardware-Accelerated 3D WebGL Ecosystem Live Link| GitHub | YouTube Presentation   **June 2024 - Aug 2024**
Tech Stack: React, Three.js (R3F), Chatbase, Framer Motion, Tailwind
- **Spearheaded** a 3D immersive environment using React Three Fiber and math-based damping algorithms (maath/easing), delivering a fluid 60 FPS interactive experience across devices.
- **Boosted Mobile Performance** from **41 to 56**+ and Desktop to **86+** by implementing Draco Mesh Compression (70% asset reduction) and React Suspense for asynchronous asset orchestration.
- **Reduced Total Blocking** Time by utilizing delayed hydration and async execution for **third-party AI scripts**, ensuring sub-second Largest Contentful Paint (LCP).
- **Developed** a custom high-performance particle engine using **HTML5 Canvas API** and integrated hardware-accelerated scroll-bound animations via **GSAP and Lenis.**

AshFit | Full-Stack E-commerce Platform   Live Link | GitHub | YouTube Presentation   **Nov 2024 - Feb 2025**
Tech Stack: React.js, Node.js, Express.js, SQL, Tailwind CSS, REST API, Postman, RBAC
- **Architected** a decoupled **full-stack ecosystem** using Node.js and Aiven Cloud (MySQL), orchestrating **25+ RESTful** endpoints with a verified **Time-to-First-Byte (TTFB)** latency of **<200ms (averaging 160ms).**
- **Hardened** application security by implementing **JWT-based authentication** and custom **Role-Based Access Control (RBAC) middleware**, successfully protecting administrative routes and sensitive user data from unauthorized access.
- **Spearheaded** the development of an automated Admin Inventory Dashboard with full **CRUD functionality**, reducing manual product management overhead by **~50% for 20+ live** performance-apparel listings**.**
- **Orchestrated** a robust transaction pipeline by designing relational SQL schemas for persistent cart management and multi-step checkout, validating **100% of workflows** via **automated testing** using **Postman** to ensure zero data loss.
- **Streamlined** a production-grade CI/CD pipeline using **GitHub, Render, and Vercel**, enabling automated deployments and ensuring high availability of the storefront and backend API.

AshStar | AI-Powered Gamified SaaS Platform   Live Link | GitHub | YouTube Presentation   **Sep 2025 – Present**
Tech Stack: React.js, Node.js, Express.js, MongoDB, GSAP, Google Gemini API, Draco Compression
- **Spearheaded** the development of a gamified 3D interface utilizing **GSAP Timelines and Lenis smooth scrolling**, achieving hardware-accelerated animations and a consistent **77+ Lighthouse** Performance score on **desktop.**
- **Engineered** a robust AI integration using the **Google Gemini API**, implementing model redundancy logic (Pro/Flash failover) to maintain high service availability and bypass API rate-limiting during peak loads.
- **Designed** a relational-style MongoDB schema to manage persistent session-based "**Neural Memory**," enabling the seamless linking of **1,000+ data points** across user histories, sessions, and chat logs.
- **Optimized** the delivery of 3D immersive assets by implementing **Draco mesh compression**, reducing model file sizes by over **65%** while maintaining visual fidelity across desktop and mobile browsers.
- **Streamlined development**-to-production workflows by containerizing the backend using Docker, ensuring environment parity and reducing manual deployment overhead by approximately **30%**.

Education

- B.Tech in Computer Science – Chitkara University | Graduated 2025 | CGPA: 7.77/10   **Sep 2021 - Aug 2025**