

# JESSICA AGARWAL

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## SUMMARY

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Computer Science undergraduate passionate about full-stack development and real-world applications. Experienced in building scalable web platforms with secure authentication, state management, and cloud deployment. Contributed to HR and e-commerce platforms featuring PayPal integration, Redis caching, and responsive design. Actively learning and applying modern tools to deliver impactful user experiences.

## EDUCATION

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### JECRC University

2024 – 2028

*B.Tech - Computer Science and Engineering - CGPA: 9.5/10*

*Jaipur, Rajasthan*

- Specialization: Software Product Engineering with Kalvium

## PROJECTS

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### HRX: Flexi Workforce Hub 📄 | MERN, Redis, JWT, Google OAuth, Jest, Render

- Built and deployed a full-stack HR management platform using the MERN stack.
- Secured endpoints with JWT, Google OAuth, and phone OTP; implemented role-based access (Admin/HR/Employee).
- Implemented Redis caching across dashboards, leaves, payroll, and user sessions with TTLs and smart invalidation strategies.
- Reduced backend response time by 66.7% (from 3ms to 1ms) and decreased DB queries by 60–80%.
- Applied API rate limiting: 5 req/min for sensitive routes, 200 req/15min globally—protecting against brute-force and abuse.
- Wrote backend unit tests with Jest for core API routes, improving test coverage and reliability.
- Enabled CI/CD by configuring auto-deployment to Render via GitHub integration.

### E-Commerce Application 📄 | MERN, Redux Toolkit, Tailwind CSS, PayPal API

- Built a full-stack e-commerce web application with modular architecture and RESTful APIs for user, product, and order management.
- Executed JWT-based authentication, secure cookie handling, and integrated dual payment methods (PayPal and COD payments).
- Designed features for product CRUD, shopping cart, checkout, address handling, and order history.
- Leveraged Redux Toolkit for state management and styled the frontend using Tailwind CSS; integrated PayPal via the official React SDK.

## TECHNICAL SKILLS

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**Languages:** JavaScript, Java, Python

**Frameworks & Libraries:** React.js (with Vite), Node.js, Express.js, Redux Toolkit, Tailwind CSS

**Databases:** MongoDB, SQL, Firebase

**Tools & Platforms:** Git, GitHub, Postman, Figma, Canva, Vercel, Render, Cloudinary, Redis

**Authentication:** Firebase Auth, JWT, Google OAuth

## HONORS AND CERTIFICATION

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- Led a 6-member team in Smart India Hackathon 2024 Prelims — Project "Virtual Herbal Garden" shortlisted among Top 5 teams nationwide.
- Foundations: Data, Data, Everywhere – Google (Verify)
- Data Science Foundations – Great Learning (Verify)