Jaskirat Singh Chowdhary

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Projects

DSA Fusion　　　LINK   **May 2025-June 2025**
- Pioneered DSA Fusion, an interactive educational platform for Data Structures and Algorithms, delivering comprehensive content and algorithm visualizations which captivated users for an average of 8 minutes per session.
- Engineered interactive visualizations for six core algorithms using DOM manipulation and event-driven programming, directly enhancing user understanding and leading to a 20% increase in positive user feedback on the website's educational value.
- Engineered DSA Fusion's front-end with **HTML**, **CSS**, and **JavaScript**, prioritizing responsive design which led to a 60% increase in mobile user engagement.
- **Tech Used**: HTML, CSS, JavaScript — emphasizing front-end development, performance optimization, and real-time interactivity

Inventory Management System   **April 2025- May 2025**
- Engineered a real-time Inventory Management System leveraging **Spring Boot** and **RESTful APIs**, optimizing stock monitoring and streamlining order processing, which cut order fulfillment times by 30% and improved efficiency.
- Fortified data integrity of the inventory management system by implementing Spring Boot RESTful API endpoints, leading to the identification of three critical vulnerabilities and implementing comprehensive risk mitigation strategies in the system.
- Pioneered a robust user authentication system leveraging **JWT** and **Spring Security,** managing access permissions across three distinct roles and reducing potential security vulnerabilities by 75%.
- Engineered **PostgreSQL** database integration with **Spring Data JPA**, enhancing data retrieval speeds by 35% and reducing database query latency by 20 milliseconds per request.
- **Tech Used**: React.js (frontend), Spring Boot (backend), PostgreSQL, Spring Security, JWT, Spring Data JPA — highlighting full-stack development and secure enterprise application design.

AI powered Job matcher   **December 2024- January 2025**
- Integrated OpenAI GPT APIs into the job-matching platform to provide advanced semantic analysis, resulting in accurate match scoring, automated job feedback to hundreds of users, and 20% more completed profiles.
- Engineered OpenAI GPT API integration for semantic resume analysis, achieving an 85% accuracy rate in job-candidate matching and delivered automated feedback to improve candidate applications.
- Implemented prompt engineering techniques within OpenAI GPT models, elevating the accuracy of job-fit insights by 40%, leading to faster candidate placements and improved employer satisfaction scores.
- Designed a secure, microservices-based system architecture with form validation and token-based authentication, enabling seamless integration of new features with zero downtime incidents reported.
- **Tech Used**: Spring Boot (Java), React.js, SQLite, OpenAI APIs — showcasing expertise in AI integration, full-stack development, and secure, real-time application architecture.

Skills

- **Programming Languages & Frameworks**: Java, Python, C/C++, HTML, CSS, Spring Boot, React.js, JavaScript, Node.js, Express.js, Angular
- **Databases & Data Management:** MySQL, MongoDB, SQLite, PostgreSQL, SQL, Database Design, Data Modeling, Relational Databases, NoSQL Databases, Data Migration
- **Web Development & Design:** RESTful APIs, Responsive Design, UI/UX Design, Frontend Development, Backend Development, Full-Stack Development, Performance Optimization, Real-time Interactivity, API Design, Microservices
- **Security & Authentication**: Authentication, Authorization, Role-Based Access Control, JWT, Spring Security, OAuth 2.0, Encryption, Hashing, Cryptography
- **Software Development Tools**: VS Code, Git, GitHub, Command Prompt, Maven, Gradle, IntelliJ IDEA, Eclipse, Jenkins

Education

- **Bachelors of Engineering in Computer Science with hons IOT| Chandigarh University**   **June 2022 - June 2026**
- (CGPA: 7.31

- **Intermediate (CBSE) I Guru Harkrishan Public School, Chandigarh**   **April 2021 -May 2022**
- (Percentage: 73.5%)

- **Matriculation (CBSE) The Millennium School, Raman Mandi**   **April 2019 - May 2020**
- (Percentage:89.5)

Certifications

- NPTEL-Introduction to IOT   LINK

- Oracle- Cloud infrastructure and generative AI   LINK