DHRUV SINGH

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SUMMARY

Results-oriented software professional with experience building **3+ end-to-end applications** spanning **backend, frontend, and data-driven systems**. Well-versed in the **full Software Development Life Cycle (SDLC)**, including **requirement analysis**, **database design**, **development**, **unit testing**, and **documentation**. Strong proficiency in **Python, Java, React, and SQL**, supported by solving **600+ Data Structures and Algorithms (DSA) problems** on **competitive programming platforms**.

TECHNICAL SKILLS

Programming Languages: Java (OOP, Collections, Multithreading), Python (Scripting, Data Processing)
Databases: SQL & Oracle(100+ complex queries)
Web Technologies: HTML5, CSS3, JavaScript (DOM manipulation, responsive UI)
Tools & Platforms: Git, GitHub, VS Code, Vercel
Testing & Documentation: Unit Testing (20+ test cases), Test Case Design, Technical Documentation
Data & Analysis: Data Validation, Basic Statistical Analysis, Structured Data Processing

PROJECTS

Vehicle Detection and Counting (Python, OpenCV)   github.com/dhruvsingh895/Vehicle-detection
  – Developed a computer vision system processing **real-time traffic video streams** with **85%+ vehicle detection accuracy**.
  – Implemented **background subtraction, contour detection, and Gaussian filtering**, reducing false positives by **30%**.
  – Optimized frame preprocessing to handle **1000+ frames per minute**.
  – Designed centroid-based vehicle tracking and line-crossing logic for accurate traffic counting.
  – Authored detailed technical documentation covering architecture, algorithms, and validation results.

Smart Recipe Generator (JavaScript, HTML, CSS)   github.com/dhruvsingh895/smart-recipe-generator
  – Built a client-side web application supporting **multiple dynamic filters** such as diet type and cooking time.
  – Improved user interaction efficiency by **40%** using real-time DOM updates without page reloads.
  – Implemented **LocalStorage-based persistence** to retain user preferences across sessions.
  – Designed a fully responsive UI compatible with desktop and mobile devices.
  – Deployed the application on **Vercel**, ensuring stable production performance.

Hotel Menu Card (Frontend Development)   github.com/dhruvsingh895/Hotel-Menu-card
  – Developed a responsive digital menu system using **10+ reusable UI components**.
  – Converted business requirements into functional UI, reducing manual menu updates by **70%**.
  – Optimized CSS and layout structure to improve page rendering speed and usability.
  – Performed unit-level testing across multiple screen sizes to ensure cross-browser compatibility.

KEY ACHIEVEMENTS

• Designed and delivered **3+ full-stack applications** covering frontend, backend, and data layers.

• Solved **600+ Data Structures and Algorithms problems on LeetCode** across arrays, trees, graphs, DP, and recursion.

• Maintained a **5-star rating on HackerRank** through consistent problem-solving performance.

• Solved **100+ problems on GeeksforGeeks**, strengthening algorithmic and logical thinking.

• Completed industry-recognized programs including **Salesforce AI Trailblazer** and **JPMorgan Chase & Co. Quantitative Research Job Simulation**.

EDUCATION

Pranveer Singh Institute of Technology   India
B.Tech – Computer Science and Engineering — CGPA Equivalent: 7.8/10   *Dec 2022 – Present*
Pt. Deen Dayal Upadhyaya Sanatan Dharm Vidyalaya   India
Class XII — Percentage: 84%   *Mar 2022*
Pt. Deen Dayal Upadhyaya Sanatan Dharm Vidyalaya   India
Class X — Percentage: 93%   *Mar 2020*