

Saksham Gupta

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Academic Background

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| • Bachelor of Technology, Computer Science and Engineering
VIT Bhopal University | CGPA-8.58
2022-2026 |
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Technical Skillset

- **Programming language:** Python, JavaScript, SQL.
- **Frontend:** ReactJS, NextJS, TailwindCSS.
- **Backend:** NodeJS, ExpressJS.
- **Database:** MySQL, Oracle DB.
- **Dev Tools:** AWS cloud, Git, Rest APIs, Linux.

Projects

Agentic AI Coding Assistant | [Link](#) [pip/uv: genai, sys, os, virtualenv]

- Designed and implemented a system that uses sys for user prompt intake and handles Python file I/O operations through Gemini function declarations, guided by a system prompt, enabling autonomous manipulation of multiple files within the working directory.
- Built an iterative control loop with sequential function calls where Gemini analyzes, debugs, rewrites, and re-executes broken Python files until successful completion, while maintaining full conversational context using a message history array.

Serverless Receipt OCR and Storage Solution | [Link](#) [pip/uv: boto3, os, json, datetime]

- Engineered an AWS Lambda function that automatically processes receipt images uploaded to S3 bucket using AWS Textract AnalyzeExpense API. It extracts structured data like vendor names, dates, totals, and line items, converting physical receipts into organized digital records.
- Architected DynamoDB to record extracted receipt data with unique IDs for tracking and retrieval purpose. Integrated with Amazon SES, which sends automated email summaries with purchase details, using error-resilient design that prioritizes data storage even if email notifications fail.

Secure Authentication System | [Link](#) [npm/pnpm: express, crypto, bcrypt, session, passport, dotenv, mysql]

- Built and optimized an Express application that features dual authentication via Passport: local strategy (email/password) and Google OAuth 2.0 strategy, applies bcrypt hashing with multiple salt rounds, and encrypts passwords using AES before MySQL storage for privacy preserving security.
- Configured Express sessions to maintain user authentication for 6 hours, leveraged Passport to preserve user state across requests, and secured MySQL interactions using parameterized queries and environment variables to mitigate SQL injection and credential exposure risks.

Global Certification

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| • AWS Certified Cloud Practitioner | Verification |
| • Oracle Generative AI Professional | Verification |
| • Oracle Vector AI Search Professional | Verification |
| • Oracle OCI 2025 - Foundations Associate | Verification |
| • Oracle OCI 2025 - AI Foundations Associate | Verification |

Accomplishments

- Identified an error in the official AWS documentation; the suggested correction was validated and further pushed to production.
- Awarded The CBSE Certificate of Merit in Mathematics for ranking among top 0.1 Of Students Nationwide in Class 10 Board Examination.