

# Abdul Aziz Khatri

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 abdulazizkhatri

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## Profile

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Software Development Engineer with hands-on experience building backend systems, real-time applications, and protocol-level components. Strong problem-solving focus with solid foundations in data structures, algorithms, and system design. Oracle Certified in Java and SQL, with experience across Python, Java, C++, and SQL.

## Education

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### B.Tech Computer Science and Engineering

*Parul Institute of Engineering and Technology*

2022 – 2026

## Certificates

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- Oracle Certified Professional: Java SE 11 Developer
- Oracle Certified SQL Specialist
- Oracle Certified PL/SQL Specialist

## Professional Experience

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### SDE Intern

Jan 2026 – Present

*Zenlynx Technology*

- Built a **document generation engine** in Python using python-docx that renders 40+ page documents with complex tables in under 3 seconds.
- Designed a canonical JSON schema to normalize unstable frontend payloads into deterministic structures for the DocGen engine.
- Developed a **FastAPI** pipeline for in-memory document generation and streaming via **BytesIO** to avoid disk I/O overhead.

### Django Developer Intern

Dec 2024 – Mar 2025

*CRTD Technologies*

- Developed the core backend and administrative dashboard for an online testing platform using Django
- Built and maintained the backend for a jobs/internships application portal serving **15,000+** users.
- Engineered a synchronization pipeline between MySQL and Google Sheets via Google Apps Script for real-time data tracking.
- Implemented JWT/cookie-based authentication with Role-Based Access Control (RBAC) and integrated the **Razorpay API** for payments.

## Projects

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### Schedulify

Ongoing

(*Django*)

- Building a sophisticated scheduling engine that automates timetable generation by integrating specific teacher preferences and institutional constraints.
- Implemented **Linear Programming** models to optimize the distribution of subjects, teachers, and divisions.
- Utilized **Constraint Satisfaction Programming (CSP)** logic to handle the precise allocation of classroom resources and timeslots

## C++ WebSocket Client

Jan 2026

(C++, Asio)

- Engineered a custom WebSocket client on top of **ASIO**, implementing the full **RFC 6455** specification without the use of higher-level libraries.
- Developed manual protocol components including **HTTP upgrade handshakes**, frame parsing, masking, and **fragmentation** (FIN handling).
- Integrated **TLS support via OpenSSL** and maintained a strict separation of concerns between networking and protocol layers.
- Built a professional-grade development environment using **GN/Ninja** for optimized builds, **GCC/Clang** for compilation, and a suite of unit tests.

## Card Game

Dec 2025

(Node, Express, Socket.io)

- Developed the backend for a real-time, multiplayer Indian card game.
- Managed game state logic for turns, auctions, and partnerships, including handling of private and public player views.
- Implemented room management and chat functionality to support multiple users.

## Minesweeper Solver

Dec 2024

(JavaScript)

- Built a solver that completes Minesweeper boards using knowledge representation and logical inference.
- Included adjustable animation speeds and customizable board settings for visualization.

## Problem Solving

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- LeetCode: 200+ problems (100 Medium)
- CodeChef: 225+ problems
- HackerRank: 5 star in Java, Python, SQL, C

## Skills

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### **Languages**

Python, Java, JavaScript, C++, C, SQL, PL/SQL

### **Backend**

Django, Django REST Framework (DRF), FastAPI, Node.js, Express, Socket.io

### **Databases**

Oracle Database, MySQL, PL/SQL (Procedures, Triggers, Functions)

### **Tools & Practices**

Git, Linux, shell scripting, RESTful APIs, Unit Testing,

## Languages

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English | Hindi | Urdu | Gujarati | Arabic