

## Work Experience

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### 1. 4C Plus

May 2025 – August 2025

#### Software Development Trainee

- Collaborating with the development team on real-time software solutions and internal tools.
- Contributing to backend module enhancements and database-driven functionality using Python and SQL.
- Involved in debugging, code reviews, and feature deployment, gaining hands-on experience in agile development practices.
- Exposure to software lifecycle, version control (Git), and client-oriented development workflows.

### 2. Centre For Railway Information Systems (CRIS)

#### Data Analytics & ML Intern

August 2025 - Present

- Built Python/SQL pipelines for train, ticketing, and asset data, cutting prep time by 40%.
- Prototyped delay prediction and anomaly detection models in scikit-learn with cross-validated baselines.
- Delivered KPI dashboards (Power BI/matplotlib) for on-time performance, route trends, and peak utilization.
- Optimized SQL with indexing/window functions and reusable views for faster, consistent reporting.

## Education

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### Guru Gobind Singh Indraprastha University

Delhi, India

Btech , Computer Science

CGPA: 7.4

August 2022 - May 2026

## Skills

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- **Languages:** Python, C++
- **Data Analytics & BI:** Power BI, Advanced Excel, PostgreSQL, Power Query
- **Python Libraries & Frameworks:** pandas, NumPy, matplotlib, scikit-learn
- **Excel Expertise:** PivotTables, Dashboards, XLOOKUP, Slicers, Conditional Formatting
- **Developer Tools:** Git, Visual Studio Code

## Projects

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- **ChatBot | Python:** [GitHub](#)
  - Developed a voice-controlled AI assistant that responds to 20+ commands including YouTube downloads, internet speed testing, number lookups, and screen recording. Integrated pyttsx3, speech\_recognition, pytube, and GUI modules like Tkinter to deliver a seamless voice-activated experience. Added functionality for typing tests, translation, notifications, and a digital clock interface, showcasing full-stack automation with real-time interaction.
- **University Management System | PostgreSQL, PL/pgSQL:**
  - Designed a relational database with normalized tables for students, courses, professors, and enrollment tracking.
  - Developed stored procedures, views, and audit triggers for grade updates using PostgreSQL.
  - Built a custom calculate\_age() function, applied indexing for faster querying, and created views for grade analysis and professor performance.
- **Weather Insights Dashboard | Power BI, Weather API:**
  - Ingested real-time and historical weather data via REST API, transformed with Power Query, and set up parameterized/scheduled refresh.
  - Modeled location-time metrics with DAX measures (temperature, humidity, wind, AQI) and built interactive dashboards with slicers and drill-through.
  - Added data quality checks, documented API limits/retries, and implemented 7-day trend forecasting with anomaly/threshold alerts.
- **HR Analytics Dashboard | Advanced Excel:**
  - Created a dynamic Excel dashboard using PivotTables, slicers, conditional formatting, and charts to visualize employee KPIs.
  - Included attrition insights, demographic breakdowns, and department-level comparisons for better HR decision-making.
  - Used Power Query for data shaping and formula-driven automation to ensure scalability.

## Achievements

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- Vice Chairperson, IEEE Student Branch (2024–Present): Spearheaded technical workshops and community outreach for 300+ members.
- Vice President, Cultural Council (2024–Present): Managed 10+ campus events, enhancing student engagement by 40%.
- Built 15+ technical projects with real-world application and end-user interaction. Delivered dashboards and data visualizations to derive actionable insights from complex datasets.