

Optimized Professional Profile of Kuldeep Mandal

Section 1: Core Professional Identity, Mission, and Contact

Identity: An IT Graduate specializing in the intersection of **Data Analysis** and **Full Stack Development**. Currently enrolled in a Master's in Computer Applications (MCA) at Amity University Jharkhand (2024 - Present, CGPA 7.93).

Mission & Objective: To specialize in data analysis, ensuring data integrity through **SQL**, utilizing **Python** for complex analysis, and mastering **Power BI** visualization. My mission is to synthesize academic knowledge and experience to translate data into actionable insights and deliver robust digital solutions, supported by experience with Streamlit Cloud and Generative AI (GenAI) frameworks like RAG.

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- **CV Website:** https://kuldeep681.github.io/CV_website/

Section 2: Comprehensive Technical Skills Matrix (T-Matrix)

Development and Programming Stacks

- **Python (Primary Focus):** Integral to Data Analysis, AI/API integration, and GenAI tools (LangChain).
- **Java (Intermediate):** Core Concepts, mastering OOPs principles, exception handling, and robust backend logic.
- **Web Fundamentals (Strong Foundational):** HTML, CSS, JavaScript for responsive design.
- **Frameworks & Tools:** Actively building proficiency in **React.js**, experience with **Node.js**, and using **Git/GitHub** for professional version control.

Data Science, Database, and Analytical Tools

- **Database:** Core competency in **SQL** and **MySQL** for management and complex query execution.
- **Data Science Toolkit:** **Pandas** and **NumPy** for advanced data cleaning and preprocessing.
- **Visualization:** Proficient in **Power BI**, **Matplotlib**, **Seaborn**, and **Tableau**.
- **AI Tools:** Hands-on experience utilizing a **Vector Database (ChromaDB)** for structured retrieval in GenAI applications.

Cloud, Operational Tools, and Soft Skills

- **Deployment:** Streamlit Cloud and Serverless/Zero-Cost Architecture using Puter cloud for efficient applications.
- **Operational:** Working knowledge of MS Office.

- **Soft Skills:** Strong Communication, Teamwork, Self Motivation, Adaptability, Analytical Reasoning, and Precision.

Section 3: Professional Experience

Data Analytics Intern, Cognifyz Technologies (April 2025 – May 2025 | Online)

- Performed complete customer churn analysis, leveraging Python and machine learning to predict customer attrition.
- Visualized key predictors using Matplotlib, Seaborn, and Tableau, delivering actionable predictive insights that informed strategic planning for targeted user segments.

Summer Training, Analyze Infotech (July 2022 – September 2022 | Lucknow)

- Focused on the development lifecycle and enterprise application structure (SDLC).
- Successfully applied core Java concepts to implement robust backend logic and delivered a major application built during the training period.

Section 4: High-Impact Projects

This portfolio demonstrates an advanced grasp of modern AI architecture and traditional enterprise solutions.

4.1 RAG-Powered Candidate Assistant

- **Description:** Engineered a custom RAG (Retrieval-Augmented Generation) AI Assistant using the **LangChain** framework and **ChromaDB** to retrieve and synthesize highly accurate, context-aware answers about my professional profile.
- **Impact:** Demonstrated end-to-end GenAI application development (LLMOps), optimizing response speed using high-speed **LLM APIs (Groq)** and deploying the custom interface to **Streamlit Cloud**.
- **Tools Used:** Python, RAG, LangChain, Streamlit Cloud, Vector Databases (ChromaDB), Groq API, GenAI/LLMS.

4.2 AI Resume Analyzer (Applicant Tracking System - ATS)

- **Description:** Developed a serverless AI application built with **React** and **Tailwind CSS** that utilizes multiple LLM APIs (Groq, Claude, etc.) to instantly score and analyze uploaded resumes against specific job descriptions.
- **Impact:** Architecture leverages **Puter.js** for cloud and AI processing, achieving **zero-infrastructure cost** and highly scalable deployment managed from the front-end, providing targeted, actionable feedback for optimization.
- **Tools Used:** React, Tailwind CSS, Puter.js, LLM APIs (Groq, Claude, etc.), File Storage.

4.3 Inventory Management System

- **Description:** A full-stack enterprise solution developed using **Java**, **NetBeans IDE**, and **MySQL**.

- **Functionality:** Includes comprehensive product management, real-time stock tracking, sales reporting, and secure user authentication, proving capability in small-to-medium business inventory control.

4.4 AI Voice Assistant

- **Description:** A desktop-based assistant utilizing **Python** and a Custom **Kivy GUI** to integrate real-time speech recognition and conversational AI features.
- **Functionality:** Provides system automation for news and weather updates, highlighting expertise in artificial intelligence application and voice processing.

Section 5: Academic Milestones, Certifications, and Future Growth

Education: BCA (2020 - 2023) and ongoing MCA (2024 - Present).

Certifications (Udemy):

- Java Data Structures and Algorithms
- Full-Stack Web Development Bootcamp
- Python Bootcamp

Strategic Self-Improvement Areas:

1. **Advanced Data Structures and Algorithms (DSA):** For maximum code optimization.
2. **Deeper Proficiency in React:** Targeting state management and advanced component architecture.
3. **Expanding Backend Framework Knowledge:** Mastering enterprise-grade frameworks such as Spring Boot, Django, or Flask.
4. **Mastering Deployment and DevOps:** Gaining expertise in CI/CD pipelines and containerization using Docker.