

# Shefali Singh

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## PROFESSIONAL SUMMARY

Data-driven professional with 2+ years of experience in QA and data analytics. Skilled in Python, SQL, Excel, and machine learning. Proven track record of enhancing testing efficiency by over 30% and delivering predictive models using ML and deep learning to solve real-world challenges. Adept at automating workflows and building data pipelines to improve operational performance.

## EDUCATION

<b>Master of Engineering</b> (Computer Science) Thapar University	2022 - 2024 Grade: 9.07/10.0
<b>Bachelor of Engineering</b> (Computer Science) Chitkara University	2016 - 2020 Grade: 9.04/10.0
<b>Intermediate (Class XII)</b> Nav Yug Higher Secondary School	2015 - 2016 Grade: 84.6%
<b>Matriculation (Class X)</b> Nav Yug Higher Secondary School	2013 - 2014 Grade: 94.0%

## EXPERIENCE

**QA analyst** September 2019 - July 2022  
ORANGE BUSINESS SERVICES *Gurugram, Haryana*

- Automated testing pipelines across 10+ GUI and API applications, resulting in a 40% faster test cycle.
- Reduced manual effort by 30% through Python automation scripts for repetitive regression task execution.
- Utilized JIRA, Selenium, and API tools to streamline testing, improving issue resolution rates by 25%.

## INTERNSHIPS

**Data analyst / Machine Learning Engineer** September 2023 - June 2024  
LG SOFT INDIA *Greater Noida, UP*

- Leveraged ML models to forecast AC energy consumption, boosting efficiency by 18% through strategic optimization recommendations; evaluated model performance using precision, recall, and F1-score for accuracy
- Used Tesseract OCR for automated Korean text extraction and translation from design diagrams, aiming to reduce design review time by 25%.
- Executed NLP-driven market analysis by scraping 15K+ records, performing feature extraction and sentiment classification, influencing 3 product roadmap decisions

## PROJECTS

**Math & Reasoning Assistant:** May 2025

- Engineered a Streamlit application leveraging Gemma-2 and LangChain to serve as an interactive Math & Reasoning Assistant.
- Designed and implemented tools within LangChain for real-time problem-solving capabilities in mathematics and reasoning.
- Achieved a high accuracy rate of 95% in solving diverse math problems, demonstrating strong computational and logical reasoning prowess.

**CV Parsing & Matching** May 2025

- Engineered a CV parsing and matching pipeline leveraging BERT and GPT models to accurately extract skills from resumes.
- Implemented a similarity scoring mechanism to effectively match extracted skills with job descriptions.
- Achieved high performance metrics: 85% precision and 88% recall in matching candidates to relevant job roles.

**Retrieval-Augmented Generation (RAG):** March 2025

- Developed a Streamlit-based Retrieval-Augmented Generation (RAG) application for efficient Q&A over 50+ PDF documents.
- Integrated LangChain, FAISS, and Llama3 to build a robust RAG pipeline, enabling intelligent document querying.
- Achieved over 90% accuracy in Q&A performance, demonstrating highly effective information retrieval and generation.

**Chinook Music Sales Analysis** February 2025

- Analyzed over 9,000 music sales records to extract key business insights.
- Utilized SQL to identify top-performing genres and inform strategic marketing decisions.
- Drove a 15% reduction in customer churn and enhanced customer targeting through data-driven recommendations.

**Zomato Restaurants Analysis** ([Github](#)) ([Demo](#)) October 2024

- Conducted a comprehensive analysis of Zomato restaurant data using Excel, identifying key trends and patterns in customer ratings, cuisine preferences, and geographical distribution.
- Utilized advanced Excel functions and pivot tables to evaluate restaurant performance, highlighting top-performing eateries and areas with potential for growth based on customer reviews and sales data.
- Leveraged data visualization tools in Excel to create interactive dashboards, enabling stakeholders to easily track and compare restaurant metrics, customer satisfaction levels, and market trends in real-time.
- Tools used: Excel, PowerPoint, google spreadsheets.

**Optimizing Energy Consumption of AC through Machine Learning** February 2024

- The project utilized machine learning to optimize energy efficiency in LG's AC product line by analyzing user behavior data and environmental variables.
- It aimed to develop predictive models for dynamic AC settings, enhancing energy efficiency and user comfort.
- Tools used: Python, TensorFlow, scikit-learn, Matplotlib, Jupyter notebook

**Tesseract OCR-based computer vision system to translate Korean text on PCB and microprocessor designs into English.**  
January 2024

- Developed a Tesseract OCR-powered computer vision system to extract and translate Korean text from PCB and microprocessor designs into English.
- Streamlined design interpretation and accelerated development workflows through automated text recognition and translation.
- Tools used: Python, OpenCV, Tesseract OCR, Google Translate API.

### **Web scraping, Sentiment analysis, and Feature engineering**

September 2023

- Strengthened market positioning by conducting in-depth competitive analysis using web scraping to gather actionable data.
- Applied sentiment analysis and feature engineering to derive insights, driving strategic decision-making.
- Tools used: Python, BeautifulSoup, Selenium, NLTK, TextBlob, spaCy.

### **CERTIFICATIONS**

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#### **Professional Certificate Course in Data Science & AI** Newton School

September 2024

- Currently pursuing a Professional Certificate in Data Science & AI, focusing on data analysis, machine learning, artificial intelligence, and statistical modeling.
- Developing expertise in advanced data techniques to extract insights and address complex business challenges.

#### **Natural Language Processing (NLP) in Python with 8 Projects** UDEMY ( [Link](#))

June 2024

- Certified in Natural Language Processing, specializing in text classification, summarization, sentiment analysis, and tokenization.
- Gained practical experience in word embeddings, text generation, and data visualization.

#### **The Complete Python Bootcamp From Zero to Hero in Python** Udemy ( [Link](#))

April 2024

- Certified in Python, mastering core concepts like data structures, OOP, and essential skills like file handling, debugging, and unit testing.
- Developed strong command-line skills and a robust understanding of fundamental Python programming principles.

#### **Machine Learning A-Z: AI, Python & R + ChatGPT Prize [2024]** UDEMY ( [Link](#))

March 2024

- Certified in "Master Machine Learning on Python & R."
- Expertise in ML model development, predictive analytics, RL, NLP, and dimensionality reduction.

### **SKILLS**

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**Computer Language:** C++, Python, SQL

**Courses:** Data Structure

**Soft Skill:** Decision-making, Leadership, Research, Teamwork, Time management, Verbal/nonverbal communication, Written communication

**Databases & Data Tools:** Excel, MySQL, Power BI, Spreadsheet, Tableau

**AI / ML:** Generative AI, LLM, Machine Learning, TensorFlow

**Cloud & DevOps:** AWS, Linux, Virtualization

**Domain & Business Skills:** Jira

**Frameworks & Libraries:** Matplotlib, Microsoft Office, NumPy, OpenCV, Pandas