

TANUJ SANWAL

Software Developer | Python • Node.js • SQL
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PROFESSIONAL SUMMARY

MCA (Data Science) graduate with hands-on experience in Python, SQL, Machine Learning, FastAPI, PostgreSQL, Neo4j, and Power BI. Experienced in developing AI-driven applications, data analytics solutions, and backend systems through internships and academic projects. Strong analytical, problem-solving, and software development skills with a keen interest in Data Science, Data Engineering, and AI/ML technologies.

EDUCATION

Master of Computer Applications (MCA) – Data Science UPES Dehradun • CPI: 7.37 / 10	2024–2026
Bachelor of Commerce (B. Com) Kumaun University – LBS Haldwani • 76.96%	2020–2023

TECHNICAL SKILLS

Programming Languages: Python, Java, SQL.

Web Development: Node.js, Express.js, HTML, CSS

Tools & Platforms: Git/GitHub, Jupyter Notebook, VS Code, Agile Development, Postman

Databases: SQL, MySQL, MongoDB, Neo4j

EXPERIENCE

Software Development Intern | Xebia IT Architects Pvt. Ltd. Jan 2026 – May 2026

Project: Role-Based Personalized Learning Pathway Engine (RB-PLPE)

- Developed the **Role-Based Personalized Learning Pathway Engine (RB-PLPE)** for skill gap analysis and personalized learning recommendations.
- Implemented **JobBERT**, **Neo4j**, and **PPO Reinforcement Learning** to generate optimized learning pathways.
- Built backend APIs using **FastAPI**, **PostgreSQL**, and **JWT Authentication**.

Data Analytics Trainee | MedTourEasy – Healthcare Analytics | India June 2025

- Processed structured datasets using **Python** and **SQL** to support analytical reporting.
- Conducted exploratory data analysis and developed visualizations to identify patterns in healthcare datasets.
- Collaborated with team members to deliver analytical insights and structured reports.

KEY PROJECTS

Role-Based Personalized Learning Pathway Engine (RB-PLPE) 2026

Tech Stack: Python, FastAPI, Neo4j, PostgreSQL, JobBERT, PPO RL, Streamlit

- Designed and developed an end-to-end AI-powered learning recommendation system to identify skill gaps and generate personalized learning roadmaps.
- Implemented **Transformer-based skill extraction** using JobBERT and role-skill relationship modeling using **Neo4j Knowledge Graph**.
- Developed a **PPO-based recommendation engine** to generate optimized, non-redundant, and difficulty-aware learning pathways.
- Leveraged real-world datasets containing **30,000+ IT job postings** and **766 curated online courses** to improve recommendation accuracy and industry relevance.

Celebrity Look-Alike Detection System 2025

Tech Stack: Python, TensorFlow, OpenCV, Streamlit

- Conducted functional and UI testing for image upload and prediction workflows.
- Validated model outputs against expected results.
- Documented test cases and test execution results.

AI-Powered Micro Learning Platform 2024

Tech Stack: React.js, Node.js, Express.js, MongoDB, Python

- Created and executed test scenarios for user registration, login, and quiz generation modules.
- Performed API testing using Postman to validate backend endpoints.
- Conducted database validation to ensure accurate storage and retrieval of user data.
- Identified functional issues and documented defects.

CERTIFICATIONS

- Python Programming – **Udemy**
- Data Analytics Job Simulation – **Deloitte Australia (Forage)**
- Programming Foundations with JavaScript, HTML, and CSS – **NIIT**

ACHIEVEMENTS

- Represented at **State-Level Tennis** and secured **6th Rank** in National Yoga Championship — demonstrating focus, discipline, and competitive performance under pressure.