OM SHIRUDE

Open to Relocate

+91 9156740025 | om.shirude03@gmail.com | LinkedIn | GitHub | Medium | Portfolio

WORK EXPERIENCE

D10x   **July 2024 – July 2025**

AI Engineer Intern   *Pune, Maharashtra*

- **Multi-Agent AI Development**: Built a multi-agent framework for a healthcare website using LangGraph, knowledge graphs, RAG, and the OpenAI API to accurately process and respond to user queries.
  Tools: LangGraph, Neo4J, OpenAI API, Python, NLP
- **Data Pipeline Development:** Developed Python scripts to build and manage a data pipeline, handling the automated import and management of data from diverse sources including APIs, JSON, and Excel.
  Tools: Python, PostgresSQL, Playwright, Requests , Openpyxl, Pandas, Psycopg2
- **Hospital Ranking System**: Engineered the hospital ranking feature using Python to process data, apply custom formulas, and write scripts that stored the final, calculated rankings into the database.
  Tools: Python, Pandas, Scipy, PostgresSQL
- **AI System Development:** Tasked with building an AI-powered system designed to generate both SQL queries and data visualizations directly from natural language inputs. The core objective was to enhance the efficiency of data analysis workflows.
- **Multi-Agent System Experimentation:** Developed GPT-4o Mini-based workflows with agents for query simplification, relevance detection, SQL generation, and result formatting; tested on *dvdrental* PostgreSQL via SQLAlchemy, with results logged in Excel.

KASNET TECHNOLOGIES PVT. LTD.   **Nov 2023 – Dec 2023**

Data Analyst Intern   *Pune, Maharashtra*

- **Cloud and Data Training**: Completed intensive training focused on Microsoft certifications, covering fundamentals in Azure (AZ-900), AI (AI-900), Power Platform (PL-900), and Data (DP-900).
- **Project Application**: Applied the training by working with Azure Cloud Services and Microsoft Power BI to contribute to the projects.

PROJECTS

AutoViz: Automate SQL Queries and Visualizations with AI

- Automated Pipeline: Developed an end-to-end AI-powered pipeline to translate natural language user queries into data visualizations automatically.
- Multi-Agent Framework: Utilized a multi-agent framework that processes user input along with a database schema, retrieved via SQLAlchemy, to generate precise SQL payloads.
- Seamless Visualization: Integrated the generated SQL payloads with Apache Superset to automatically create and display charts and graphs, enabling a smooth query-to-chart workflow.
- https://github.com/OmShirude/AutoViz
- *Tools: Python, SQLAlchemy, Ollama, Apache Superset, NLP, HTML, CSS, WSL*

SmartSlot: AI-Driven Delivery Scheduling System for India Post

- AI-Powered Optimization: Designed an AI-driven system to optimize delivery schedules for India Post, enhancing logistical efficiency.
- Interactive Scheduling: Enabled recipients to conveniently select or modify their preferred delivery time slots through common platforms like WhatsApp or SMS.
- Scalable Frontend: Built a scalable and modern user interface using Next.js and TailwindCSS, ensuring the system is a flexible and robust logistics solution.
- https://smartslot.vercel.app
- *Tools: Vercel, Next.js, Tailwind CSS, Twilio*

Comparative Analysis of Machine Learning Techniques in Predicting Flight Prices

- Predictive Modeling: Developed and evaluated several regression models to predict airfare dynamics and uncover insights into pricing fluctuations.
- Model Comparison: Conducted a comparative analysis of Linear Regression, Decision Tree Regressor, and Extra Trees Regressor to determine the most effective model for the task.
- Goal-Oriented Analysis: The primary objective was to identify cost-effective travel solutions by understanding and forecasting flight price trends.
- https://github.com/OmShirude/Projects/blob/main/Predicting_flight_prices.py
- *Tools: Google Colab, Pandas, Matplotlib, Sklearn*

EDUCATION

Bachelor of Engineering, Artificial Intelligence and Data Science   *August 2021 –*
June 2025

Savitribai Phule Pune University (SPPU)

Relevant Coursework – Machine Learning, Statistics, Data Structures and Algorithms, Database Management System, Data Modelling and Visualizations, Web Technology, Internet of Things, Artificial Intelligence, Artificial Neural Networks, Distributed Computing, Pattern Recognition

ACHIEVEMENTS

- FIDE Rated Chess Player played at the zonal level.
- Won the Ensemble 2K24 Chess Tournament.
- Won Prize in Ensemble 2k25 Chess Tournament while arranging the whole event.
- Participated in SIH 2024.

CERTIFICATIONS

Artificial Intelligence (Infosys Springboard), AI for Youth Program (Intel), Microsoft Azure AI Fundamentals(AI-900), Reinforcement Learning and Deep Learning Essentials(Cognitive), Data Analysis with Python(Cognitive)

TECHNICAL SKILLS

Programming Languages: Python, SQL, HTML, CSS

Technology: LLMs, Multi Agent Frameworks, Context Engineering, Data Analytics, Supervised & Unsupervised Learning, NLP, DBMS, Data Preprocessing

Tools: PostgreSQL, SQLAlchemy, LangChain, LangGraph, OpenAI API, HuggingFace, Ollama, Git, VS Code, GitHub, Excel, Power BI, N8N