Shivam Prakash

Bhopal, Madhya Pradesh, India | +91-8271685258 | shivamprakash.official2004@gmail.com
github.com/ShivamSolves | linkedin.com/in/shivam-prakash | shivamsolves.github.io

Professional Summary

Computer Science (AIML) graduate with hands-on experience in Python development, data analysis, and machine learning. Built a tested, CI-enabled RAG application and a real-time edge-AI detection system, supported by a strong foundation in data structures & algorithms, SQL/DBMS, operating systems, and computer networks. Seeking Python Developer, Data Analyst, or Associate System Engineer roles, and open to other technical roles in IT.

Education

Oriental Institute of Science and Technology, Bhopal 2022 – 2026
Bachelor of Technology in Computer Science and Engineering (AIML) *CGPA: 7.94*

Creane Memorial High School, Gaya 2020 – 2022
Class 12th (CBSE, Maths): 70.00% — Class 10th (CBSE): 88.16%

Relevant Coursework: Object-Oriented Programming, Data Structures & Algorithms, DBMS, Operating Systems, Computer Networks, Artificial Intelligence, Machine Learning, Data Analysis, Probability & Statistics

Experience

Python Developer Intern | *Bindisa Agritech Pvt. Ltd.* July 2025 – Dec 2025

- Developed Python modules for the Autonomous Bio-Acoustic Deterrent System, an edge-computing solution that detects animals in real time and triggers species-specific deterrent responses for crop protection.
- Integrated a YOLOv8 and OpenCV detection pipeline with a PyAudio-based deterrent engine, selecting scare calls according to model detection confidence.
- Tested and optimized the detection-to-deterrent pipeline on edge hardware, achieving under 250 ms end-to-end latency, and built MQTT-based alerting from field nodes to a central dashboard.
- Researched AI/ML applications in agriculture, delivering data-driven insights that informed crop-suitability scoring and a soil-moisture prediction model.

Projects

FinSight AI | *Python, Streamlit, ChromaDB, sentence-transformers, Gemini API, pandas, pytest* Oct 2026

- Engineered an end-to-end RAG personal-finance assistant in Python that ingests bank statements (CSV/PDF) and UPI payment screenshots (via Gemini vision) into a single categorized transaction ledger.
- Implemented grounded generation: answers are computed solely from retrieved transactions and returned with a confidence score and an evidence table; added a deterministic offline mode requiring no API key.
- Built a Streamlit dashboard with pandas-driven KPIs and category/monthly spending charts; validated with a 106-test pytest suite, an offline retrieval-evaluation harness, and CI automation.

Autonomous Bio-Acoustic Deterrent System | *Python, YOLOv8, OpenCV, PyAudio, MQTT* Dec 2025

- Led a cross-functional team in building an edge-computing crop-protection system that delivers species-specific animal detection with < 250 ms end-to-end latency using YOLOv8 and OpenCV.
- Developed a Python bio-acoustic deterrent engine that selects species-specific scare calls based on model detection confidence.
- Designed a low-bandwidth MQTT-over-LoRaWAN telemetry layer for reliable alert delivery from remote field nodes to a central dashboard.

Technical Skills

Programming & Databases: Python, SQL, Rust (Basics)
Core CS Fundamentals: Data Structures & Algorithms, OOP, DBMS, Operating Systems, Computer Networks
Data Analysis & Visualization: Pandas, NumPy, Matplotlib, Power BI, Tableau, Advanced Excel
Machine Learning & AI: Scikit-learn, TensorFlow, PyTorch, Regression, Classification, Clustering, Model Evaluation
Deep Learning & GenAI: Neural Networks, NLP, LLMs, RAG, Prompt Engineering, LangChain, Hugging Face
Web & Backend Development: Flask, Django, Streamlit, REST APIs, HTML, CSS, React
Tools & Platforms: Git/GitHub, GitHub Actions (CI/CD), Docker, Jupyter Notebook, Google Colab, AWS (Basics)

Certifications & Licenses

AWS Cloud Practitioner Essentials – Amazon Web Services | **Data, ML and AI in Google Cloud** – Google Cloud Skill Boost | **GenAI Apps Development** – Google Cloud Skill Boost | **Python for Data Science** – NPTEL (Elite) | **Python Essentials 1 & 2** – Cisco NETACAD