

Manoj A

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[Leetcode](#) | [Github](#) | [LinkedIn](#)

PROFESSIONAL SUMMARY

Software Engineer with hands-on experience in developing, testing, and deploying scalable software solutions using Python and Java. Strong in problem-solving, debugging, and collaborating in agile teams. Passionate about applying innovative technologies to drive automation, performance, and business impact. Experienced in working across SDLC phases and maintaining code quality through reviews and version control.

SKILLS SUMMARY

- **Languages:** Python, Java, JavaScript, SQL
- **Frameworks/Libraries:** Flask, Scikit-learn, NumPy, Pandas, Matplotlib
- **Software Development:** Object-Oriented Programming (OOP), Data Structures, REST APIs, SDLC
- **Tools:** Git, GitHub, Docker, Jupyter, Postman, Selenium, Tableau
- **Testing:** Pytest, Unit Testing, Debugging, Code Reviews
- **Databases:** MySQL, PostgreSQL
- **Platforms:** Google Colab, Streamlit
- **Methodologies:** Agile, Scrum, Version Control, CI/CD Concepts

EXPERIENCE

DataRevealAI | Software Tester Intern | Coimbatore | Mar 2025 - Jul 2025

- **Developed manual and automated test scripts** using Selenium and Python (Pytest) to debug the HRMS platform, improving test coverage and collaborating directly with developers on code-level fixes.
- Formulated and executed rigorous test strategies that identified critical bugs, directly contributing to a 15% reduction in defect detection time.
- Participated in code reviews and debugging sessions, helping to maintain code quality and adherence to Agile sprint goals.

KEY PROJECTS

Real-Time System Monitoring Dashboard | Self Project | [Link](#)

Aug 2025

- **Optimized Kafka throughput** and consumer tuning, **cutting message lag by 25%** for a real-time system metrics pipeline.
- Engineered a fault-tolerant Kafka-to-PostgreSQL pipeline to stream and store system metrics (CPU, memory, disk) with low latency and fault tolerance and integrated an ML anomaly detection model (about 90% accuracy) to flag unusual workload patterns.
- Deployed a Streamlit dashboard for live visualization and automated alerts, improving monitoring efficiency by 30%.
- Containerized and deployed with Docker, ensuring portability, scalability, and consistent performance across environments.

Face Recognition and Matching System | Self Project | [Link](#)

Nov 2024

- Architected a high-precision face retrieval system using **InsightFace** and **FastAPI**, achieving superior identification accuracy over traditional HOG methods for large-scale albums (500+ images).
- Engineered a high-performance backend pipeline using Python asyncio and parallel processing, reducing image indexing and upload latency by **80%** through internal compression and concurrent execution.
- Deployed a containerized solution using Docker on Hugging Face Spaces, integrating Supabase for scalable cloud storage and implementing semaphore-based concurrency to optimize memory usage.

AutoML Credit Card Fraud Detection | Self Project | [Link](#)

Mar 2024

- Designed an AutoML-based fraud detection system using H2O.ai and Scikit-learn that **detected 90% of fraudulent transactions** while reducing false positives by 30%..

EDUCATION

Karpagam College of Engineering, Coimbatore | B.Tech, Artificial Intelligence and Data Science | CGPA: 8.87 | Expected Graduation: 2026

Sri V.R.V Matric Higher Secondary School , Tirupattur | HSC, Biology Maths | Percentage: 95% | Graduated: 2022

CERTIFICATIONS

- [Udemy](#) - The Complete 2025 Software Testing Bootcamp
- [NPTEL](#) - Data Analytics with Python (Elite)
- [NPTEL](#) - Foundations of R Software (Elite)
- [freeCodeCamp](#) - Machine Learning with Python

SCHOLASTIC ACHIEVEMENTS

- Team leader - SIH(2024) and selected in top 30 teams out of 120 in college level
- Delivered ML lectures at Altalya Solutions Pvt Ltd, Tiruppur