

## Atharva Shirke

Software Engineer, R&D

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### SUMMARY

Results oriented Software Engineer specializing in Python backend development, server management, and Extended Reality (XR). Proficient in leveraging Data Structures, Algorithms, and CI/CD pipelines to deliver scalable solutions. Adept at driving innovation and rapid adoption of emerging technologies in Agile environments.

### EXPERIENCE

#### Software Engineer

Sep '23 — Present

Persistent Systems Limited

Pune, India

- Implemented object detection solutions using YOLO, optimizing detection accuracy by 17% and reducing processing time by 12% for real-time business use cases.
- Collaborated on building a customGPT with LangChain and LlamaIndex for Retrieval Augmented Generation(RAG).
- Developed embeddings for Retrieval-Augmented Generation (RAG) models using OpenAI and Ollama, storing and managing them in vector databases like Pinecone, improving retrieval accuracy by 23% and reducing query response times by 13%.
- Built React applications for Mixed Reality(MR)and Augmented Reality(AR) Proof of Concepts (POCs).
- Designed backend solutions via. FastAPI and MongoDB.

#### Software Engineer Intern

Jun '23 — Sep '23

Persistent Systems Limited

Pune, India (Remote)

- Employed as a Java Salesforce Intern.
- Completed Problem Statements given on Java, HTML5, CSS3, JavaScript.
- Understood usage and implementation of Salesforce.
- Experienced in Python Development.

#### Machine Learning Intern

Jul '21 — Sep '21

Knowledge Solutions India

Pune, India

- Worked as a Machine Learning Intern in the organization.Learned
- how machine learning algorithm behaves.
- Gained knowledge about neural networks.
- Designed and trained a Heart Disease Recognition model, improving prediction accuracy by 68% and facilitating early detection of heart conditions during model training and evaluation phases.

### PROJECTS

#### Custom RAG [Link](#)

- Created a custom RAG system tailored to a specific business need. Explored data storage and retrieval processes to optimize functionality.
- Tech Stack: Python, FastAPI, Langchain

#### Freelancers [Link](#)

- A Django Web App connecting freelancers with job opportunities, simplifying the process of finding work.
- Tech Stack: Django, Sqlite3, OpenAI

### SKILLS

**Development** Python, Java, JavaScript, React

**Version Control** Git, Version Control

**Database Management** SQLite3, Vector DB, MongoDB, MySQL

**Web Technologies** Web Development, Fast API, Django

**Cloud Technologies** Linux, AWS

### EDUCATION

**Bachelor's Degree in Computer Science**, N B Navale Sinhgad College of Engineering (GPA: 9.7)

Solapur

### CERTIFICATIONS

**Microsoft Azure AI-900**

May '22

### PUBLICATIONS

#### JOB SEARCH IMPROVING TECHNIQUE USING RECOMMENDATION SYSTEM AND OPEN AI.FOR FREELANCERS

Lakshmi Book Publications <https://oldror.lbp.world/ArticleDetails.aspx?id=14511>

