

# Atharva Shirke

Software Engineer (R&D)

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## About

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

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## Experience

### Software Engineer.

Persistent Systems Limited. · Pune, India

Sep '23 - Present

- 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.

Persistent Systems Limited. · Remote

Jun '23 - Sep '23

- 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.

Knowledge Solutions India · Remote

Jul '21 - Sep '21

- 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.

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## Skills

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

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

**Web Technologies:** Fast API, Django, PHP

**Cloud Technologies:** Linux, AWS

**Others:** Langchain, Fine-tuning LLM, Retrieval Augmented Generation.

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## Projects

**Custom RAG:** github.com/atharva2001/CustomRAG FastAPI, Python, Langchain

Created a custom RAG system tailored to a specific business need. Explored data storage and retrieval processes to optimize functionality.

**Freelancers:** · github.com/atharva2001/Freelancers · Django, Python, SQLite3

A Django Web App connecting freelancers with job opportunities, simplifying the process of finding work.

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## Education

N B Navale Sinhgad College of Engineering | Bachelor's Degree

Computer Science · Grade: 9.7