

# Shriyam Gupta

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## SKILLS

- **Languages:** C++, Python
- **Frameworks:** LlamaIndex, LangChain, HayStack, Streamlit, Ultralytics
- **Tools/Platforms:** Elasticsearch, Pinecone, Weaviate, Hugging Face, Gemini, Figma, VS Code, PyCharm
- **Core Skills:** Machine Learning, Generative AI, Retrieval-Augmented Generation (RAG), Vector Databases, Information Retrieval, Computer Vision, Semantic Search, Model Fine-Tuning, User Experience & User Interface Designer

## INTERNSHIP

### Jindal Steel & Power - Integrated Steel and Energy Company

June 2023 – July 2023

#### CSR Intern

- Project Overview: Developed a Q&A system for pottery-related queries using a retrieval-based NLP approach.
- Built a responsive website to showcase and sell handcrafted clay items.
- Used HTML and CSS to create a visually appealing and user-friendly interface.
- Gained practical experience in natural language processing and web development.
- Improved problem-solving skills by addressing user needs and performance issues.
- **Tech Stack:** HTML, CSS, Hugging Face, LangChain, Gemini

## PROJECTS

### Clash Of Clans Object Detection System – Python3, YOLOv11, OpenCV, Google Colab

Feb 2025 – Mar 2025

- Built a **building detection system** for Clash of Clans using YOLOv11 to identify in-game structures from screenshots.
- Curated and annotated a custom dataset with various building types: defenses, collectors, and town halls. Trained and fine-tuned YOLOv11 on Google Colab (T4 GPU), ensuring fast, scalable performance.
- Used OpenCV for **image preprocessing**—resizing and enhancement.
- Developed a **Streamlit**-based UI for real-time visualization with bounding boxes and confidence scores.
- Applied quantization and **pruning** to optimize the model for **low-resource devices**.
- Proposed future improvements: detecting traps, heroes, and siege machines for advanced base analysis.
- GitHub Repository Link: <https://github.com/Shriyam01/Clash-Of-Clans-Object-Detection-Using-YOLO11>

### Q&A With Document – Python3, Streamlit, LlamaIndex, Google Gemini Embeddings

Jan 2025 – Feb 2025

- Developed a powerful **document-based Q&A** system that allows users to upload various document formats (PDF, DOCX, TXT) and extract insights through semantic search. This system is particularly useful for research, legal documents, and academic papers where quick and accurate information retrieval is critical.
- Integrated **Google Gemini** embeddings with **LlamaIndex** to generate highly contextual vector representations of documents. These embeddings help in understanding the **meaning behind** words rather than just matching keywords, significantly improving search accuracy.
- Built a user-friendly Streamlit interface that provides an interactive chat-based experience, making it easy for users to ask questions and receive responses in real-time. The UI includes features like file uploads, progress indicators, and structured answers to enhance usability.
- Github Repository Link: <https://github.com/Shriyam01/RAG-With-Document/tree/main>

## CERTIFICATES

- Cloud Computing – By NPTEL Oct 2024
- Data Structure & Algorithm – By Board Infinity Jul 2024
- Bits & Bytes – By Google Feb 2024

## EDUCATION

- **Lovely Professional Universit** Phagwara, Punjab  
*Bachelor of Technology - Computer Science and Engineering; CGPA: 8.18* Since August 2022
- **Om Prakash Jindal School** Raigarh, Chhattisgarh  
*12<sup>th</sup> with Science; Percentage: 74.60%* April 2021 - March 2022
- **Akanksha Children Academy** Raigarh, Chhattisgarh  
*10<sup>th</sup> with Science; Percentage: 86.00%* April 2019 - March 2020