

Shreya Mittal

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Professional Summary

Passionate Computer Science student with a strong foundation in programming and hands-on experience in AI/ML, web development, and Big Data. Passionate about solving real-world problems, with a particular interest in MedTech applications. Interested in research and actively contributing to open-source projects. Committed to continuous learning and delivering impactful technological solutions.

Education

PES University, B.Tech, Computer Science Engineering 2022 – 2026
(Upto Semester 6) CGPA: 8.04

Oxford Senior Secondary School, Physics, Chemistry, Mathematics, Biology 2020 – 2022
Class XII: 95.2%

Experience

Open Source Contributor, GirlScript Summer of Code (GSSoC) 2025 August 2025 – Present

- Contributed to **DocMagic**: Configured `dependabot.yml`, improved GitHub Actions to automate dependency updates, and validated build stability through workflow testing and PR monitoring.
- Enhanced **AI Agricultural Yield Prediction** project: Developed a **modular evaluation framework** using the Strategy pattern with **plug-and-play metric** support and robust edge case handling.

Summer Intern, Centre for Healthcare Engineering and Learning, PES University June – July 2025

- Worked on **dyslexia detection** using eye-tracking data. Augmented dataset by **generating 140 synthetic subjects** using **controlled noise injection**, preserving key spatial-temporal patterns.
- Trained a **logistic regression model** on the expanded dataset, achieving **81% accuracy** using fixation-based features, while avoiding overfitting. [\[Github Link\]](#)

Project Intern, Fabrik June – August 2024

- Worked with **React-Three-Fibre** and **Three.js** to import, render, and customize 3D models and text. Used **Firebase** for storage.

Project Links: [procrastinoters.vercel.app](#), [module-02-vert.vercel.app](#)

- Worked as part of a 3-member group to develop a website for **custom 3D animations**, including merging animations, changing mesh materials, adding lighting, setting up multiple camera perspectives, and post-processing.

Project Link: [xenomorphs.vercel.app](#)

Academic Projects

Legal Contract Analysis System Using RAG | *Machine Learning, Pinecone, Gradio*

- Built an AI-driven platform for **legal contract analysis** using **Retrieval-Augmented Generation (RAG)**, hybrid semantic/keyword search, and metadata filtering. Enabled users to upload and analyze legal contracts through a Gradio web interface, supporting **clause extraction**, **risk identification**, **compliance checks**, and **contract comparison**. [\[Github Link\]](#)

Load-Balanced URL Shortener | *Docker, Kubernetes*

- Developed a scalable URL shortening service using **Flask** and **MySQL**, deployed on Kubernetes with **load balancing**, **horizontal pod autoscaling**, and stress testing capabilities, handling high concurrent traffic across multiple replicas. [\[Github Link\]](#)

Financial Tracker | *Spring Boot, MySQL*

- Developed a web-app for tracking incomes, expenses, budgets, and financial goals, implementing multiple creational and structural design patterns. Integrated MySQL for data persistence. [\[Github Link\]](#)

Fraud Detection in Credit Card Transactions | *Apache Spark, Kafka, MySQL*

- Developed a comprehensive fraud detection system that processes financial transactions using both streaming and batch processing approaches to detect fraudulent transactions in real-time and analyze historical data. [\[Github Link\]](#)

LabVerse | *Three.js, WebXR*

- Developed LabVerse, a **WebXR-based VR experience** simulating the Cave Labs at PES University using Three.js with **interactive 3D environments**. Implemented realistic lighting for immersive experience and **VR-controller support** along with cross-platform compatibility.
Project Link: lab-verse-ten.vercel.app

Bakezy | *MERN Stack*

- Developed a **recipe website** where users can browse through bakery treats and view detailed recipes for selected items.
Project Link: bakezy.vercel.app

Skills

Programming Languages: Python, C/C++ , HTML, CSS, React, Javascript, Shell

Frameworks/Tools: Docker, Kubernetes, Git, GitHub, Vercel, Hadoop, Apache Spark, Apache Kafka

Databases: MongoDB, MySQL, Firebase, Pinecone

Relevant Coursework: DSA, Web Technologies, Operating Systems, Computer Networks, Big Data, ARVR, DBMS, Machine Learning, Compiler Design, Cloud Computing, Generative AI,

Certifications

- **Google Gen AI Academy** - Completed a comprehensive learning path comprising 5 courses namely Prompt Design in Vertex AI, Build Real World AI Applications with Gemini and Imagen, Develop Gen AI Apps with Gemini and Streamlit, Inspect Rich Documents with Gemini Multimodality and Multimodal RAG and Explore Generative AI with the Gemini API in Vertex AI. [Certificate]
- **Postman API Fundamentals Student Expert** - Learnt basics of APIs, including their role in software development, and how to use Postman to interact with them through hands-on tasks. [Certificate]