

Harsh Garg
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EDUCATION

- **Vellore Institute of Technology** Bhopal, India
BTech in Computer Science and Engineering (AIML); CGPA: 8.13 Expected May 2026
- **St. Dominic's Sr. Sec. School** Mathura, India
Higher Secondary; 86.2% July 2022

EXPERIENCE

- **Brand Designer** Remote
UI/UX & Graphic Design 2-Month Freelance Project
 - **Custom Instagram Story Covers:** Created 7 custom Instagram Story highlight covers, hand-drawn and vector-grouped, reinforcing "Clay Candles" identity around each cover's edge and organizing content for a more professional feed.
 - **Generative AI Ideation:** Leveraged generative AI early in concepting to accelerate ideation, securing client buy-in when an AI-inspired direction matched their vision.
 - **Stakeholder Workshops:** Conducted stakeholder workshops and iterative reviews (3 meetings) to crystallize brand energy and messaging before design, ensuring alignment and reducing revision cycles by 30%.
 - **Instagram Reel Animation:** Scripted and animated a 15-second Instagram Reel in Figma—mapping logo formation, element transitions, and outro CTA—with custom sound design, overcoming steep learning curve to produce smooth motion and typing-effect reveal.

PROJECTS

- **Autonomous Vehicle Accident Prediction Framework — Python, scikit-learn, Pandas, RandomForest, SMOTE:** Apr 2024
 - Engineered a RandomForest-based pipeline to predict accident severity and classify liability in mixed-traffic scenarios, achieving 85% overall accuracy—10 pp higher than SVM and 17 pp above logistic regression baselines.
 - Addressed severe class imbalance via strategic undersampling and class-weighting, boosting recall on minority (Severity 1) cases by over 50% and ensuring fairer liability assignments across classes.
 - Automated end-to-end data preprocessing for 3.6 M+ records—imputing missing values, label-encoding categorical features, and MinMax-scaling—reducing pipeline runtime by 30% and enabling rapid retraining during iterative model tuning.
- **Automatic Structural Health Monitoring (AutoSHM) — Python, COLMAP, Open3D:** Apr 2025
 - Developed AutoSHM, an end-to-end automated SHM platform that converts raw building images into dense 3D reconstructions and actionable deformation diagnostics using COLMAP and Open3D.
 - Built a Flask-based backend for session management, file orchestration, and pipeline automation—auto naming sessions, triggering COLMAP/Open3D stages, and generating summary JSON—slashing manual processing time by 70%.
 - Engineered a responsive web frontend with Bootstrap and Three.js, embedding an interactive 3D viewer and download links for STL/Ply/CSV outputs, enabling non-technical stakeholders to inspect structural health in-browser.

EXTRA-CURRICULAR

- **Meraki – The Fine Arts Club** VIT Bhopal University
Secretary June 2023 – June 2025
 - Provided strategic leadership and mentorship to over 60 members, including team leads and co-leads.
 - Coordinated and implemented over 20 events and workshops, ensuring smooth operations and team collaboration for success.
 - Led the decor and design teams, directing the creation of posters and social media posts.

TECHNICAL SKILLS

Python, C++, HTML, CSS, JavaScript, Figma, UI/UX, Spline