

Mrunmayi Bhavsar

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US Citizen | No sponsorship required

Professional Summary

Final-year Information Technology student with hands-on experience building AI/ML systems across multimodal AI, RAG, LLM applications and intelligent automation through industry internships, research, and projects. Experienced in developing end-to-end solutions using Python, SQL, cloud technologies, and modern AI frameworks, with a growing focus on translating technical capabilities into useful products. Interested in the intersection of strong technical execution and product thinking, with a focus on turning real-world problems into useful, scalable AI solutions.

Education

K J Somaiya College of Engineering

Bachelor of Technology in Information Technology – **9.43 CGPA / 3.77 GPA**

Aug 2023 – May 2027

Mumbai, Maharashtra

Relevant Coursework: Machine Learning, Artificial Intelligence, Deep Learning, Probability & Statistics, Linear Algebra, Data Structures & Algorithms, Database Systems

Technical Skills

- **Programming:** Python, SQL, C++, Java
- **AI/ML:** PyTorch, TensorFlow, Hugging Face, Transformers, NLP, Computer Vision, LLMs
- **Data & Analytics:** Pandas, NumPy, Power BI, Tableau, Scikit-learn
- **Cloud & Technology:** Microsoft Azure, Google Cloud Platform, Docker, Git
- **Databases:** MongoDB, Neo4j, Redis

Experience

Research Intern (Under Prof. Kshitij Jadhav)

IIT Bombay - Koita Centre for Digital Health

Dec 2025 – Mar 2026

Mumbai, Maharashtra

- Developed and evaluated a **multimodal breast cancer classification pipeline** combining **handcrafted radiomic features** with semantic image embeddings from a **Vision Language Model (VLM)** for automated BI-RADS assessment of mammograms.
- Applied **computer vision (CV)** and **segmentation models** to localize clinically relevant regions, enabling targeted feature extraction prior to classification.
- Designed a workflow comparing handcrafted radiomics, **Vision Transformer (ViT)**-based representations and their fused feature spaces to assess complementary diagnostic signal.
- Collaborated with researchers to investigate **clinically relevant AI approaches** and refine the pipeline through iterative experimentation.

AI/ML Intern

Tata Teleservices

Jun 2025 – Nov 2025

Mumbai, Maharashtra

- Developed an automated **digital solution** for threat-email analysis covering **1,000+ daily abuse emails**, using Python, NLP, and metadata-based analysis to improve operational triage.
- Designed and optimized an automated summarization workflow to transform unstructured security reports into concise, **actionable insights** for faster analysis and decision-making.
- Integrated the solution into an **Azure-based workflow**, driving **95%+ reduction in manual analysis workload** and saving the security team **10+ hours per week**.

AI Intern

OMFYS Technologies

Jan 2025 – May 2025

Mumbai, Maharashtra

- Built a **retrieval-augmented generation (RAG)** system for policy document analysis, using knowledge graphs and semantic retrieval to improve policy analysis and information discovery.
- Designed adaptive chunking and graph-aware retrieval strategies, improving answer accuracy by **60%** on held-out policy queries.
- Optimized the platform using **Redis caching** and **Hugging Face embeddings** to improve retrieval efficiency and reduce redundant computation.

Projects

SynthAI | *Python, Neo4j, LangChain, React, TypeScript, Jira API*

[Live](#) | [GitHub](#)

- Built an **enterprise intelligence platform** integrating Jira issues, Git commits, and developer activity into a unified knowledge graph to enable cross-source analysis.
- Designed a multi-agent reasoning framework to support **resource allocation and software risk assessment**, providing **decision support** and reducing decision latency by **40%**.

EngagePredict | *OpenAI Whisper, scikit-learn, Gemini AI, FastAPI*

[GitHub](#)

- Engineered a multimodal AI audience engagement system analyzing **2,300+** audio and text samples spanning **450+ hours** across semantic, sentiment, and prosodic dimensions for automated engagement prediction.
- Designed end-to-end text and audio pipelines to extract multimodal features and generate **interpretable audience insights** for engagement analysis.
- Authored a research paper presenting the proposed solution; manuscript submitted for peer review and currently under review.

TapOut | *HeyElsa OpenClaw, x402, Solidity, React Native*

[Live](#) | [GitHub](#)

- Built an autonomous AI agent for NFC-based peer-to-peer payment workflows using **OpenClaw** and **x402**.
- Won the HeyElsa Track and ENS Pool Prize at **ETHMumbai 2026**.

Publications

- **First Author**, "Detecting and Localising Label Leakage in Benchmark Datasets." (Under Review)
- **First Author**, "How To Tell Whether a Quantum Head Will Help: A Diagnostic Protocol for Hybrid Quantum-Classical Medical Imaging." (Under Review)

Leadership & Achievements

- **ETHMumbai Winner, Mar 2026:** Winner of HeyElsa Track & ENS Pool Prize for building **TapOut**, an NFC-based tap-to-pay AI-powered crypto payment system.
- **Datathon Winner, Jan 2026:** Secured **2nd place** among **31 teams** by leading a team of 4 to architect an AI-driven enterprise intelligence solution.
- **CSI-KJSCE, Apr 2024:** Managed a national-level hackathon with **10,000+ registrations and 150+ participants**, coordinating event operations, participant engagement, and stakeholder communication.