

Isha Bamel

Software Development Enthusiast



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Education

Sardar Patel Institute of Technology

2022 – 2026

Bachelor of Technology in Computer Engineering - **9.1 CGPA** (till now)

Mumbai, India

Relevant Coursework: Database Management System, Data Structures and Algorithms, Computer Architecture, Operating Systems, OOPS, Computer Networks, Linear Algebra, Probability and Statistics

Experience

IIT Bombay

January 2025 – Present

Research Intern

Mumbai, India

- Collaborating with a multidisciplinary team **to integrate biometrics with secure authentication systems** for real-world applications.

PiSquared Payments

June 2024 – August 2024

Software Development Intern

Mumbai, India

- Analyzed loan procedure Excel sheets and **developed optimized workflows** for an ongoing project, resulting in a **25% reduction in processing time**.
- Designed and implemented **REST APIs and JSON data structures**, enhancing **project integration efficiency by 40%**.

Projects

HackCentral / MERN, Gemini Api, BERT, Sci-Kit Learn

- Developed a **virtual Hackathon Platform** with features like **teammate matching using K-means clustering** and an **email notification system** for team requests, **collaborating with team mates via video or chat rooms** and interacting with **allocated mentors**.
- Enabled **registration, organization** and **project submission** for hackathons with **real-time leaderboard updates** based on **marks and feedback** submission by judges.
- Integrated **Git version control tracking**, **automatic certificate generation** and **mailing system**.
- Enhanced user experience with a feature for **uploading hackathon brochures** and **answering related queries** using **BERT**.
- Supported four user roles: **Admin, User, Judge** and **Mentor** for tailored functionality.

SpectraScan / HTML, CSS, Flask, TensorFlow, Scikit-learn, Google Firebase

- Fine-tuned VGG19 model** achieving **90-95% accuracy** in breast cancer classification using **mammographic image analysis** and **clinical data**.
- Achieved **97% accuracy in breast cancer detection** and **94% in Parkinson's detection** through **CNN and stacking techniques** on clinical records.
- Built an intuitive, user-friendly diagnostic platform **using Streamlit and Flask**, enabling **secure mammogram** and **clinical record uploads** with real-time feedback.

Trade Sentry / HTML, CSS, JavaScript, Bootstrap, Flask, Scikit-learn

- Developed a **Flask-based anomaly detection website**, analyzing trade data with **Scikit-learn**, achieving **over 90% accuracy** in identifying anomalies.
- Provided **interactive data visualization** using **Plotly.js**, allowing users to view anomalies in graphical format or **download results in CSV**, with normal records marked as "1" and anomalies as "-1".

Technical Skills

Programming Languages: Java, C/C++, Python, MySQL, MongoDB, JavaScript, HTML/CSS, PHP

Technologies/Frameworks: React.js, Flask, Ionic, Spring Boot, Node.js, Express.js

Machine Learning & Deep Learning: TensorFlow, Keras, Scikit-learn

Achievements / Extracurricular

- Finalist at Barclays Hack-O-Hire 2024**, ranked in the **top 24 teams** out of **1200+** participants.
- Head of Public Relations, IEEE SPIT**: Led a **35-member team** to successfully organize an SE hackathon with **200+** participants and directed a **cold-calling campaign** to boost participation in the **IEEE YESIST12 challenge** across Maharashtra.
- Contributor at GSSOC'24**: Contributed to open Source projects in Web Development domain.
- Contributor at SWOC (Social Winter of Code) Season 6**