



Saaransh Gupta

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EDUCATION

Thapar Institute of Engineering and Technology

Bachelor of Engineering in Computer Sciences

Patiala, Punjab

Sep. 2022 – Apr. 2026

BCM Arya International

A Levels (High School Diploma)

Ludhiana, Punjab

Apr. 2020 – Apr. 2022

EXPERIENCE

Full Stack Intern

ACT Center, Thapar School of Liberal Art and Sciences

May 2024 – Present

Patiala, Punjab

- Built a REST API using Node.js and PostgreSQL for storing and retrieving LMS-related data efficiently.
- Developed a full-stack web application using React, PostgreSQL, and Docker for analyzing GitHub data.
- Designed interactive visualizations to illustrate GitHub collaboration metrics for classroom analysis.

Full Stack Intern

PraxisForge Pvt. Ltd.

Aug 2024 – Dec 2024

Remote | Delhi, India

- Developed a progressive web application (PWA) for news reviews and visualizing usage logs.
- Integrated AppWrite's database seamlessly with a Flutter application for backend functionality.
- Contributed over 10,000 lines of code to the company's Git repository by implementing diverse features.
- Conducted a comprehensive attention span study to optimize parameters for suggestion engines.

Undergraduate Research Intern

Pollution Control Board (PPCB), Ministry of Environment

Sep 2022 – Sep 2023

Chandigarh, India

- Worked on an Industry Institute Interface(ICube) for universities and other ITI's across the state.
- Communicate with secretaries to set communication links between researchers and subject experts.
- Maintain upkeep of logs and automate the process of communication through existing systems and resources.

PROJECTS

BoxBox - Formula 1 Strategy Maker | Python, NumPy, Pandas, React

Feb 2025 – Mar 2025

- Engineered a tyre degradation model using linear regression to predict tyre usage across stints and compounds.
- Developed a race strategy simulator leveraging stint data, pit stop deltas, and compound-specific metrics.
- Optimized pit strategies using statistical modeling, and Monte Carlo simulations for race-time minimization.

EasyFind - Smart Lost & Found System | NodeJS, React, Appwrite, Python

Aug 2024 – Oct 2024

- Developed a full-stack web application using AppWrite as the database and React for dynamic front-end features.
- Fine-tuned a pre-trained AI model (BLIP by Salesforce) achieving an accuracy of over 80% in performance.
- Implemented CI/CD pipelines using GitLab, integrating AppWrite and HuggingFace for seamless deployment.

Splitzee - Split Funds Easily | NodeJS, React, MongoDB

Jun 2024 – Jul 2024

- Crafted an app for splitting bills among groups with real-time updates and secure authentication processes.
- Used TanStack Query for caching and state management to boost responsiveness and improve performance.
- Deployed a scalable application featuring secure login and sign-up functionalities for seamless user access.

Raptus - CTF Game Portal | NodeJS, React, ThreeJS, MongoDB

Jul 2023 – Aug 2023

- Built an online game featuring an interactive 3D map, implemented and optimized using Three.js library.
- Managed over 1,200 concurrent users by handling real-time queries and enhancing data handling processes.
- Improved UI/UX design by applying modern design principles to ensure engaging and intuitive experiences.

TECHNICAL SKILLS

Languages: JavaScript, Python, GoLang, C/C++, SQL (Postgres, Oracle), HTML/CSS, R

Frameworks: Next.JS, React, Node.JS, WordPress, Material-UI, Appwrite

Developer Tools: Git, Docker, Google Cloud Platform, AWS, Azure, Visual Studio, PyCharm

Libraries: Pandas, NumPy, Matplotlib, SeaBorn, NVIDIA accelerated suit