

Snigdha Deb

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Education

VIT Bhopal University | Bhopal, Madhya Pradesh

Sept 2022- July 2026

Bachelor of Technology (Computer Science Engineering with specialization in Gaming Technology)

CGPA- 8.5/10

Skills

Technical Skills: Python, Java, C++,HTML, CSS, JavaScript

Frameworks & Technologies: React.js, Node.js, Express.js, MongoDB, MySQL

Tools/Platforms: VS Code, Unity, AWS, Git, GitHub

Languages: Fluent in Hindi, English; Conversational Proficiency in Marathi and Bengali

Projects

Phy.Gen – Prompt-Based Physics Simulator

April 2024 – May 2024

Tech Stack: *Unity Engine, HTML, CSS, TypeScript, React, JSX, and Tailwind CSS.*

- Engineered a web-based simulation tool that converts natural language prompts into real-time 2D/3D physics simulations, enabling dynamic learning
- Programmed core physics logic—including gravity, motion, force, and elastic collisions—using JavaScript and Three.js, achieving 60 FPS for smooth interactivity.
- Developed 3+ interactive modules (pendulum, spring-mass, car crash) with adjustable parameters, increasing student engagement by 40% in user testing.
- Designed the tool to enhance conceptual clarity in physics, reaching 200+ users within the first month via educational outreach.

ShopHub – MERN Stack E-commerce Platform

January 2025 – April 2025

Tech Stack: *MERN Stack, Tailwind CSS, shadcn/ui, API Integration.*

- Architected a scalable full-stack e-commerce app with responsive product listings, secure JWT-based user authentication, and real-time cart updates.
- Built backend RESTful APIs with Node.js and Express, supporting CRUD operations for 500+ products and handling concurrent requests with <200ms latency.
- Integrated MongoDB Atlas for persistent data storage and designed a modern UI using Tailwind CSS and shadcn/ui, improving UX scores by 30%.
- Deployed an admin dashboard for efficient user and inventory management, tested across devices for consistent performance and 100% mobile responsiveness.

Spam Comment Filter – Supervised Learning Project

February 2025 – May 2025

Tech Stack: *Python, NLTK, NumPy, Scikit-learn.*

- Developed a supervised machine learning model to accurately classify spam and hate comments by executing comprehensive text preprocessing, feature extraction, and data cleansing.
- Managed end-to-end data retrieval, transformation, and regression model training to ensure robust performance.
- Optimized model accuracy from 80% to nearly 90% through systematic hyperparameter tuning and iterative evaluation.

Certifications & Achievements

- MERN Full Stack Developer Certification** - Ethnus (*Certificate ID: 84Z4KWFM*) April 2025
- Gaming Techn Club:** Organized game development webinars with 50+ participants, hosted gaming competitions, and conducted user feedback surveys for improving personal projects.
- Technical Communities:** Active participant in coding competitions and hackathons, contributing to open-source project.
- Sports:** Active participant in badminton, and football teams; competed in tournaments while developing leadership, agility, and team collaboration skills.
- Music:** Proficient in playing guitar and keyboard, performed at college cultural events and festivals.