

# Priyanshu Mittal

FULL STACK DEVELOPER · MACHINE LEARNING ENGINEER

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## Summary

Driven B.Tech student in Electronics and Communication at NIT Surat with hands-on experience in web development and machine learning. Successfully developed responsive websites and machine learning models with high accuracy. Proficient in Python, JavaScript, and full-stack development with the MERN stack. Completed major projects like Real time collaboration platform and Reinforcement Learning system. Eager to leverage my skills to solve real-world problems and embrace new challenges

## Education

### NIT Surat(Sardar Vallabhbhai National Institute of Technology)

B.TECH IN ELECTRONICS AND COMMUNICATION

• CGPA 8.13

Surat, Gujarat

Dec. 2021 - May. 2025

## Work Experience

### Google Winter of Code

WEB DEVELOPER

Surat, Gujarat

Dec. 2022 - Jan. 2023

- Collaborated with a team of 2 developers to build a responsive website for a fictional company in 2 days using HTML, CSS, and JavaScript, enhancing team efficiency and project completion speed.
- Enhanced UI/UX by implementing smooth scrolling, a responsive navbar, image sliders, and modals, resulting in a 20% improvement in user engagement.

## Projects

### Full Stack Study Platform (StudyNotion)

MERN STACK (MONGODB, EXPRESS.JS, REACT, NODE.JS)

Surat, Gujarat

June. 2024

- Developed a study platform with separate login and signup functionalities for students and instructors, enhancing accessibility and security.
- Developed secure purchasing capabilities for students to browse, select, and purchase courses, integrating payment gateways for smooth transactions.
- Integrated real-time updates and notifications using WebSockets to enhance communication between instructors and students.
- Ensured data integrity and security with Express.js and MongoDB, implementing authentication and authorization using JWT.

### Collaborative Work Space Project

NEXT.JS, TAILWIND CSS, CLERK,LIVEBLOCKS

Surat, Gujarat

Jan. 2024

- Developed a feature-rich visual workspace using NextJs, Tailwind CSS, Convex Dev, Clerk, and Liveblocks, featuring a customizable whiteboard with tools for text, shapes, sticky notes, and pencil, plus layering, coloring, undo/redo, and keyboard shortcuts.
- Enabled seamless real-time collaboration with a real-time database, authentication, organization management, and invite capabilities, enhancing user engagement and teamwork efficiency.
- Styled the workspace with TailwindCSS and ShadcnUI, leveraging the Next.js 14 framework for a modern, responsive design.

### CobraMobile

NEXT.JS 14, POSTGRES, TYPESCRIPT, TAILWIND, KINDE AUTH

Surat, Gujarat

May. 2024

- A fullstack e-commerce shop for custom phone cases using Next.js 14, Postgres, TypeScript, Tailwind, and Kinde Auth, featuring a custom phone case configurator and drag-and-drop file uploads.
- Developed key functionalities including a secret admin dashboard, direct purchase capability, authentication, and automated thank-you emails.
- Ensured a modern UI with shadcn-ui, Apple-inspired design, and a beautiful landing page, with the entire project written in TypeScript.

### Snake Game AI with Reinforcement Learning

PYTHON, PYTORCH, PYGAME

Surat, Gujarat

May. 2024

- Implemented a Q-learning algorithm using Python, PyTorch, and PyGame to train an AI agent to play the snake game, achieving consistent scores over 40 points through effective state representation, reward formulation, and neural network function approximation.
- Developed a reward formulation strategy that balances short-term rewards (eating food) with long-term survival (avoiding collisions), leading to a 25% improvement in the agent's performance.

## Skills

<b>Programming Languages</b>	Python, C, Assembly, JavaScript, TypeScript
<b>Frameworks/Libraries</b>	TensorFlow, PyTorch, Scikit-learn, NumPy, Pandas, ReactJs, Next.js 14, TailwindCSS, Shadcn-ui
<b>Full Stack Development</b>	HTML, CSS, JavaScript, MERN Stack, Next.js
<b>Data Structures and Algorithms</b>	Expert level knowledge from solving 500+ problems on LeetCode in Python
<b>Soft Skills</b>	Collaboration, Problem-Solving, Project Management, Real-time Collaboration, UI/UX Design

## Certifications

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### Machine Learning Specialization

*Coursera*

SUPERVISED, UNSUPERVISED AND ADVANCED LEARNING ALGORITHMS

*March 2023 - July 2023*

- Earned a Machine Learning Specialization by Andrew Ng on Coursera, covering supervised and unsupervised learning, reinforcement learning, and neural networks.

### Convolutional Neural Networks and Deep Learning

*Coursera*

COMPUTER VISION , DEEP LEARNING AND NETWORK ARCHITECTURE

*July. 2023 - Oct. 2023*

- Completed Coursera's CNN course, covering the fundamentals of Convolutional Neural Networks (CNNs) and their applications in computer vision tasks. Built CNN architectures using TensorFlow and Keras, gaining hands-on experience with real-world datasets.