

# Krishna Pratap

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## EDUCATION

**Sardar Vallabhbhai National Institute Of Technology, Surat**

*B.Tech in Electronics & Communication Engineering*

Nov. 2022 – May. 2026

8.56/10.00 CGPA

## PROJECTS

### Mockmate - AI

[Deployment Link](#) | [Source Code](#)

- **Built a full-stack AI-powered mock interview platform** using Next.js, React and Gemini AI, delivering dynamic technical and behavioral questions tailored to user profiles.
- **Implemented secure authentication and session management** using Clerk, leveraging middleware to protect routes and enhance session security.
- **Enabled speech-to-text answers and webcam-based interaction** using Web APIs, improving accessibility and user engagement.
- **Optimized database performance** with Drizzle ORM and Neon.tech, reducing query latency and enabling scalable schema-first development.

### Carotid-Artery Segmentation

[Source Code](#)

- **Built a medical image segmentation system** to detect carotid arteries in ultrasound scans, aiding vascular health risk assessment.
- Used **U-Net architecture implemented in TensorFlow Keras** with encoder-decoder layers and skip connections for precise boundary detection.
- **Achieved 0.008 test loss and 99.66% test accuracy** after training on preprocessed ultrasound images.
- **Delivered a Dice score of 93.08% and IoU of 87.06%**, indicating high overlap with expert-annotated masks.

### CineVerse : Blog-Application

[Deployment Link](#) | [Source Code](#)

- Developed a **full-stack movie blog application** using MongoDB, Express, React, and Node.js.
- Integrated **Google OAuth** for seamless user authentication and faster onboarding experience.
- Implemented **Redux Toolkit** for efficient global state management.

## TECHNICAL SKILLS

**Languages :** C/C++, JavaScript, SQL, Python

**Tech Stacks :** React.js, Next.js, Node.js, TailwindCSS, Tensorflow-Keras, Numpy, Pandas, Scikit-Learn

**Developer Tools :** Postman, VS Code, GitHub, Docker

**Core Subjects :** Data Structures & Algorithms, Object Oriented Programming, Database Management System, Operating Systems

## ALGORITHMIC COMPETITIONS/ACHIEVEMENTS

- Solved **800+ DSA problems** across platforms like LeetCode and GeeksforGeeks.
- Selected among the **Top 22 teams** across India for **DotSlash 8.0** conducted by SVNIT Surat.
- Achieved **Top 5 rank in Inception**, a competitive programming contest hosted on Codeforces.
- Achieved **Top 10 rank in Google Winter of Code** organized by DSC Surat.

## EXTRACURRICULARS

### Executive

2024

*ACM, SVNIT SURAT*

- Collaborated with over 40 executives, gaining experience in teamwork, leadership, and strategic planning.
- Contributed to organizing events that engaged over 500 participants, improving event turnout and member engagement.

### Member

2024

*National Service Scheme (NSS), SVNIT SURAT*

- Participated in various social initiatives including cleanliness drives, awareness campaigns, and community service.
- Contributed to campus and local outreach efforts promoting civic responsibility and volunteerism.