

# Dhruv Patel

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## EDUCATION

<b>Dharmsinh Desai University</b> <i>B.Tech in Computer Engineering</i>	07/2019 – 05/2023 CPI: 7.62
<b>Ashwamegh Vidhyalaya</b> <i>12th Board (Science PCM)</i>	06/2018 – 05/2019 Percentage: 86.3%
<b>Shri Saraswati Vidhyamandir, Valsad, Gujarat</b> <i>10th Board</i>	06/2016 – 05/2017 Percentage: 76.3%

## WORK EXPERIENCE

<b>Matrix Comsec Private Limited</b> <i>Engineer - Software Development (R&amp;D-I)</i>	01/2023 – Present Vadodara, Gujarat
<ul style="list-style-type: none"><li>• Proficient in designing and developing client-based Windows and <b>Streaming applications</b> that communicate with servers using socket programming, and skilled in using <b>VC++ within the MFC</b> framework to create robust software, including thorough documentation.</li><li>• Collaborated with the development team to implement efficient solutions, resulting in improved product quality.</li><li>• Identified and fixed bugs in the Smart Client, ensuring optimal functionality and user experience.</li><li>• Led the refactoring of the playback setting bar for the company's flagship product, Smart Client, used for video playback controls.</li><li>• Acquired proficiency in using <b>FFmpeg</b> to decode audio and video.</li><li>• Gained experience in <b>OpenCV</b> for manipulating video data.</li><li>• Learned and applied <b>MFC (Microsoft Foundation Classes)</b> and <b>VC++</b> for Windows application development.</li></ul>	

## PROJECTS

### P2P Chess Game (Pear Runtime)

- Developed a **serverless, real-time** peer-to-peer chess game using **Hyperswarm** for P2P connectivity.
- Implemented **js-chess-engine** for game logic, move validation, and state synchronization.
- Designed a feature-rich UI with **valid move highlighting, in-game chat, and automatic board orientation**.
- Utilized an **event-driven architecture** to ensure smooth and low-latency gameplay.
- Optimized **network performance** with message serialization and cryptographic security.
- Tech Stack: **JavaScript , HTML5, CSS3, Hyperswarm, Hypercore-Crypto, Pear, b4a**.

## SKILLS

- **Languages:** C, C++, Python, JavaScript
- **Libraries:** OpenCV, FFmpeg, Tkinter
- **Tools:** Git, GitHub
- **Technologies:** MFC, Socket Programming

## INTERESTS

- Chess