

## Design Choices in the Portfolio Website

1. **Typography:**
    - **Choice of Fonts:** Usage of the 'Poppins' font family gives a modern, clean look, aligning well with a portfolio theme.
    - **Font Sizes and Weights:** Adequate variation in font sizes (e.g., headings vs. body text) ensures readability and aesthetic hierarchy.
  2. **Color Scheme:**
    - **Primary Colors:** Black and green (#1f242d and #7cf03d) provide a high-contrast, visually striking palette.
    - **Day/Night Mode:** Adding the toggle feature for light and dark themes enhances usability and user preference.
  3. **Navigation:**
    - **Sticky Navbar:** Fixed navigation ensures easy access to different sections, improving user experience.
    - **Active State Indicators:** Highlights the current section (e.g., `.nav-links a.active`) for better navigation awareness.
  4. **Animations:**
    - Subtle animations (e.g., the `moveUpDown` effect on the profile image) provide dynamism without overwhelming the user.
  5. **Section Layouts:**
    - **Landing Page:** Balanced layout with text and image creates a strong first impression.
    - **About Section:** Flexbox ensures a responsive and visually pleasing structure.
  6. **Skills Section:**
    - Visual representation of proficiency levels (e.g., progress bars) is intuitive and attractive.
    - Use of hover effects adds interactivity.
  7. **Projects and Certifications:**
    - Overlay effects in the project section are engaging.
    - Including certificates with links ensures transparency and validation.
  8. **Contact Form:**
    - A simple, functional form allows users to connect easily.
    - Placeholder text offers guidance, ensuring better usability.
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## Challenges Faced in Development

1. **Responsiveness:**
  - Challenge: Ensuring the layout is responsive across all devices, including mobile and tablets.
  - Solution: Use of `flexbox` and `media queries` helps adapt the layout effectively.
2. **Dark/Light Mode Toggle:**

- Challenge: Synchronizing CSS changes dynamically based on user interaction.
- Solution: Use JavaScript to toggle classes or inline styles.
- 3. **Performance Optimization:**
  - Challenge: Images and animations can slow down page load times.
  - Solution: Optimize images for web using tools like TinyPNG and implement lazy loading.
- 4. **Cross-Browser Compatibility:**
  - Challenge: Styles and features may render differently in various browsers.
  - Solution: Use browser-specific prefixes or fallback styles (e.g., `-webkit-`).
- 5. **Content Organization:**
  - Challenge: Maintaining a clean and structured design without overwhelming the user.
  - Solution: Use whitespace effectively and implement consistent spacing.
- 6. **SEO and Accessibility:**
  - Challenge: Making the website discoverable and usable for all users, including those with disabilities.
  - Solution:
    - Use semantic HTML tags.
    - Add `alt` attributes to images.
    - Implement ARIA roles where needed.
- 7. **Dynamic Interactivity:**
  - Challenge: Adding interactivity (e.g., dropdown menus or animations) without compromising functionality.
  - Solution: Use lightweight JavaScript or libraries like jQuery for seamless integration.