
CAPSTONE PROJECT

INTERACTIVE DIGITAL PORTFOLIO

Presented By:
Chakka Satyasree-Malla Reddy College of Engineering for Women-
CSE
AICTE ID : STU65b273ddd1b2f1706193885

OUTLINE

- **Problem Statement**
- **System Development Approach** (Technology Used)
- **Algorithm & Deployment (Step by Step Procedure)**
- **Result**
- **Conclusion**
- **Future Scope**
- **References**

PROBLEM STATEMENT

- **Lack of Interactivity in Traditional Resumes** – Conventional resumes are static and fail to showcase creativity, problem-solving ability, and technical skills interactively.
- **Limited Visual Appeal** – Recruiters often find resumes monotonous, making it harder for developers to stand out in a competitive job market.
- **Ineffective Skill Representation** – Listing skills in plain text does not fully reflect proficiency levels or practical applications through projects.
- **Poor Accessibility of Projects** – Sharing project details via documents or GitHub links lacks context and visual presentation, reducing impact.
- **Difficulty in Creating a Personal Brand** – Without a personalized digital presence, developers struggle to differentiate themselves and establish credibility.
- **Low Engagement from Recruiters/Clients** – Static portfolios don't capture attention as effectively as interactive and animated web experiences.
- **Fragmented Presentation of Information** – Skills, projects, and contact details are often scattered across multiple platforms (resumes, LinkedIn, GitHub), making it inconvenient for viewers.

SYSTEM APPROACH

1. Problem Identification

- Developers struggle to showcase their skills and projects effectively.
- Traditional resumes lack interactivity and engagement.

2. System Objectives

- Create an interactive, user-friendly portfolio website.
- Showcase skills, projects, and contact details in one platform.

3. System Requirements

- **Frontend:** HTML, CSS, JavaScript.
- **Features:** Smooth scrolling, animations, responsive design, dark/light mode.
- **Content Sections:** About Me, Skills, Projects, Contact.
- **Deployment:** Can be hosted on GitHub Pages, Netlify, or personal server.

SYSTEM APPROACH

1. 4. System Design

- **Architecture:** Single Page Application (SPA) style with navigation.
- **UI/UX Design:**
 - Hero section with typing animation.
 - Cards for skills and projects with hover effects.
 - Smooth reveal animations on scroll.
 - Contact cards for email, LinkedIn, and GitHub.
- **Theme Toggle:** Light/Dark mode using CSS variables.

5. System Implementation

- **HTML:** Structure of sections (About, Skills, Projects, Contact).
- **CSS:** Styling, animations, transitions, responsiveness.
- **JavaScript:** Navigation, smooth scrolling, reveal effects, theme toggle.

6. System Testing

- Responsiveness testing on multiple devices.
- Cross-browser compatibility check.
- Performance optimization (loading speed, smooth animations).

7. System Output

- A fully functional, visually appealing, and interactive portfolio website.
- Engaging user experience with animations and navigation.
- Single point of access for recruiter to know about developer's profile.

ALGORITHM & DEPLOYMENT

Step 1: Start.

Step 2: Load the portfolio website in the browser.

Step 3: Display **Hero section** with typing animation.

Step 4: Wait for user interaction (scroll / click navigation).

Step 5: If navigation link is clicked → Scroll smoothly to target section.

Step 6: When section comes into view → Trigger reveal animation (skills, projects, contact cards).

Step 7: If user clicks **theme toggle** → Switch between Light/Dark mode.

Step 8: If user selects **contact option** → Redirect to email, LinkedIn, or GitHub.

Step 9: Continue until user exits the website.

Step 10: End.

ALGORITHM & DEPLOYMENT

Deployment Steps

- **Prepare Project** – Organize index.html, style.css, script.js and test locally.
- **Use GitHub** – Push code to a GitHub repository.
- **Choose Hosting** –
 - **GitHub Pages** → Enable Pages in repo settings.
 - **Netlify** → Drag & drop folder / connect repo.
 - **Vercel** → Import repo & deploy.
- **Verify** – Test link on different devices & browsers.
- **Maintain** – Update repo → site auto-updates.

RESULT

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4    <meta charset="UTF-8" />
5    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
6    <title>Chakka Satyasree | Developer Portfolio</title>
7    <link rel="stylesheet" href="style.css" />
8    <link
9      href="https://fonts.googleapis.com/css2?family=Poppins:wght@300;400;600;700&display=swap"
10     rel="stylesheet"
11   />
12 </head>
13 <body>
14   <header>
15     <nav>
16       <div class="logo">Portfolio</div>
17       <ul class="nav-links">
18         <li><a href="#about">About</a></li>
19         <li><a href="#skills">Skills</a></li>
20         <li><a href="#projects">Projects</a></li>
21         <li><a href="#contact">Contact</a></li>
22       </ul>
23       <!-- Theme Toggle -->
24       <button class="theme-toggle" id="theme-toggle"> 🌙 </button>
25       <!-- Hamburger -->
26       <div class="hamburger">
27         <span></span><span></span><span></span></div>
28     </nav>
29   </header>
30
31   <main>
32     <!-- Hero -->
33     <section id="hero" class="hero-section">
34       <div class="hero-content">
35         <h1 class="typing-text">Hi, I'm Chakka Satyasree</h1>
36         <p>
37           A passionate web developer focused on building clean, user-friendly,
38           and responsive applications.
39         </p>
40         <a href="#projects" class="cta-button">View My Work</a>
41       </div>
42     </section>
43
44     <!-- About -->
45     <section id="about" class="content-section">
46       <h2 class="section-title">About Me</h2>
47       <div class="about-container">
```


RESULT

```
48 <div class="about-container">
49   
50   <p>
51     Hello! I'm a full-stack developer based in Hyderabad, specializing in
52     building exceptional digital experiences. With a strong background in
53     both front-end and back-end technologies, I enjoy turning complex
54     problems into simple, beautiful, and intuitive designs.
55   </p>
56 </div>
57 </section>
58
59 <!-- Skills -->
60 <section id="skills" class="content-section">
61   <h2 class="section-title">My Skills</h2>
62   <div class="skills-grid">
63     <div class="skill-card">
64       <div class="skill-icon">🔗</div>
65       <h3>Frontend</h3>
66       <p>HTML, CSS, JavaScript</p>
67     </div>
68     <div class="skill-card">
69       <div class="skill-icon">🔗</div>
70       <h3>Backend</h3>
71       <p>Java, Python, Express</p>
72     </div>
73     <div class="skill-card">
74       <div class="skill-icon">🔗</div>
75       <h3>Database</h3>
76       <p>MongoDB, MySQL</p>
77     </div>
78     <div class="skill-card">
79       <div class="skill-icon">🔗</div>
80       <h3>Tools</h3>
81       <p>Git, GitHub, VS Code</p>
82     </div>
83   </div>
84 </section>
85
86 <!-- Projects -->
87 <section id="projects" class="content-section">
88   <h2 class="section-title">My Projects</h2>
89   <div class="projects-grid">
90     <div class="project-card">
91       <h3>Research Agent</h3>
92       <p>The Research Agent is an AI-powered system designed to automate and streamline the process of gathering, analyzing, and summarizing information from multiple sources. It leverages Natural Language Processing (NLP), Machine Learning, and data retrieval techniques</p>
93     </div>
94     <div class="project-card">
```

RESULT

```
1  /* Theme Variables */
2  :root {
3    --primary-color: #6a11cb;
4    --secondary-color: #2575fc;
5    --background-color: #f4f7f6;
6    --text-color: #333;
7    --card-bg: #ffffff;
8  }
9  body.dark-theme {
10   --background-color: #121212;
11   --text-color: #f4f4f4;
12   --card-bg: #1e1e1e;
13 }
14
15 /* General */
16 * {
17   margin: 0;
18   padding: 0;
19   box-sizing: border-box;
20 }
21 body {
22   font-family: "Poppins", sans-serif;
23   background: var(--background-color);
24   color: var(--text-color);
25   transition: background 0.4s ease, color 0.4s ease;
26 }
27 html {
28   scroll-behavior: smooth;
29 }
30
31 /* Header */
32 header {
33   position: fixed;
34   width: 100%;
35   top: 0;
36   left: 0;
37   background: rgba(255, 255, 255, 0.9);
38   backdrop-filter: blur(10px);
39   z-index: 1000;
40   box-shadow: 0 2px 10px rgba(0, 0, 0, 0.05);
41   transition: background 0.3s;
42 }
43 body.dark-theme header {
44   background: rgba(30, 30, 30, 0.9);
45 }
46 nav {
47   display: flex;
48   justify-content: space-between;
```

RESULT

```
50     max-width: 1200px;
51     margin: auto;
52     padding: 1rem 2rem;
53 }
54 .logo {
55     font-size: 1.5rem;
56     font-weight: 700;
57     color: var(--primary-color);
58 }
59 .nav-links {
60     list-style: none;
61     display: flex;
62     gap: 2rem;
63 }
64 .nav-links a {
65     text-decoration: none;
66     color: var(--text-color);
67     font-weight: 600;
68     position: relative;
69 }
70 .nav-links a.active::after,
71 .nav-links a:hover::after {
72     content: "";
73     position: absolute;
74     bottom: -5px;
75     left: 0;
76     width: 100%;
77     height: 2px;
78     background: var(--secondary-color);
79 }
80
81 /* Theme Toggle */
82 .theme-toggle {
83     background: none;
84     border: none;
85     font-size: 1.5rem;
86     cursor: pointer;
87     margin-left: 1rem;
88     transition: transform 0.3s;
89 }
90 .theme-toggle:hover {
91     transform: rotate(20deg);
92 }
93
94 /* Hamburger */
95 .hamburger {
96     display: none;
97     flex-direction: column;
```

RESULT

```
1 document.addEventListener("DOMContentLoaded", () => {
2   const navLinks = document.querySelectorAll(".nav-links a");
3   const sections = document.querySelectorAll(".content-section");
4   const skillCards = document.querySelectorAll(".skill-card");
5   const projectCards = document.querySelectorAll(".project-card");
6   const contactCards = document.querySelectorAll(".contact-card");
7   const hamburger = document.querySelector(".hamburger");
8   const navMenu = document.querySelector(".nav-links");
9   const themeToggle = document.getElementById("theme-toggle");
10
11   // Smooth scroll
12   navLinks.forEach((link) => {
13     link.addEventListener("click", (e) => {
14       e.preventDefault();
15       const target = document.querySelector(link.getAttribute("href"));
16       target.scrollIntoView({ behavior: "smooth" });
17       navMenu.classList.remove("show");
18     });
19   });
20
21   // Reveal animation
22   const revealElements = () => {
23     const triggerBottom = window.innerHeight / 5 * 4;
24
25     [...sections, ...skillCards, ...projectCards, ...contactCards].forEach(
26       (el, i) => {
27         const top = el.getBoundingClientRect().top;
28         if (top < triggerBottom) {
29           setTimeout(() => el.classList.add("visible"), i * 120);
30         }
31       }
32     );
33   };
34   window.addEventListener("scroll", revealElements);
35   revealElements();
36
37   // Active nav highlight
38   window.addEventListener("scroll", () => {
39     let current = "";
40     sections.forEach((sec) => {
41       const secTop = sec.offsetTop - 120;
42       if (pageYOffset >= secTop) current = sec.getAttribute("id");
43     });
44   });
45 }
```

RESULT

```
17     navMenu.classList.remove("show");
18   });
19 });
20
21 // Reveal animation
22 ✓ const revealElements = () => {
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25   [...sections, ...skillCards, ...projectCards, ...contactCards].forEach(
26     (el, i) => {
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29         setTimeout(() => el.classList.add("visible"), i * 120);
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33 };
34 window.addEventListener("scroll", revealElements);
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37 // Active nav highlight
38 window.addEventListener("scroll", () => {
39   let current = "";
40   sections.forEach((sec) => {
41     const secTop = sec.offsetTop - 120;
42     if (pageYOffset >= secTop) current = sec.getAttribute("id");
43   });
44   navLinks.forEach((link) => {
45     link.classList.remove("active");
46     if (link.getAttribute("href") === `#${current}`)
47       link.classList.add("active");
48   });
49 });
50
51 // Hamburger
52 hamburger.addEventListener("click", () => navMenu.classList.toggle("show"));
53
54 // Theme toggle
55 themeToggle.addEventListener("click", () => {
56   document.body.classList.toggle("dark-theme");
57   themeToggle.textContent = document.body.classList.contains("dark-theme")
58     ? "☀️"
59     : "🌙";
60 });
61 });
```

RESULT

Portfolio

About

Skills

Projects

Contact



Hi, I'm Chakka Satyasree

A passionate web developer focused on building clean, user-friendly, and responsive applications.

[View My Work](#)

RESULT

About Me



Hello! I'm a full-stack developer based in Hyderabad, specializing in building exceptional digital experiences. With a strong background in both front-end and back-end technologies, I enjoy turning complex problems into simple, beautiful, and intuitive designs.

RESULT

My Skills



Frontend

HTML, CSS,
JavaScript



Backend

Java, Python,
Express



Database

MongoDB, MySQL



Tools

Git, GitHub, VS
Code

RESULT

Portfolio

[About](#)[Skills](#)[Projects](#)[Contact](#)

My Projects

Research Agent

The Research Agent is an AI-powered system designed to automate and streamline the process of gathering, analyzing, and summarizing information from multiple sources. It leverages Natural Language Processing (NLP), Machine Learning, and data retrieval techniques to provide accurate, concise, and well-structured insights.

Blockchain Blood Donation

The Blockchain-Based Blood Donation Management System is designed to ensure transparency, security, and efficiency in the collection, storage, and distribution of blood. The project leverages blockchain technology to maintain an immutable and decentralized record of blood donations, donors, recipients, and blood bank activities.

Tourism Website

The Tourism Website Project is designed to provide users with a comprehensive platform for exploring travel destinations. The website offers detailed information about tourist attractions, accommodations, local cuisine, cultural experiences, and travel itineraries. It features interactive elements such as maps, galleries, and booking options to enhance user experience..

RESULT

Portfolio

About

Skills

Projects

Contact



Get In Touch

I'd love to connect! Reach me through any of these platforms 📧



Email

chsatyasree3@gmail.com



LinkedIn

<https://www.linkedin.com/in/chsatyasree>



GitHub

Explore my projects

Made with ❤️ by Ch Satyasree

-
- **GitHub Link** : <https://github.com/Chsatyasree3/portfolio>
 - **Project Link** : <https://chsatyasree3.github.io/portfolio/>






CONCLUSION

- Developed a **dynamic, interactive portfolio website**.
- Overcomes limitations of **static resumes**.
- Showcases **skills, projects, and contact details** in one place.
- Features **smooth navigation, animations, and theme toggle**.
- Provides a **responsive and user-friendly design**.
- Enhances **personal branding and recruiter engagement**.
- Easily **deployable** on GitHub Pages, Netlify, or Vercel.
- Acts as a **modern digital resume** for career opportunities.

FUTURE SCOPE

- Add **live project demos** and hosted links.
- Integrate a **contact form with email service/API**.
- Include a section for **blogs, certifications, or achievements**.
- Use **React, Angular, or Vue** for more scalability and performance.
- Add **backend integration** (Node.js, Firebase) for dynamic content.
- Implement **analytics** to track recruiter visits and engagement.
- Provide **multi-language support** for global accessibility.
- Enhance with **AI-powered chat assistant** for guided portfolio tours.

REFERENCES

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 <https://css-tricks.com>
- FreeCodeCamp – *Responsive web design and portfolio building guides*
 <https://www.freecodecamp.org>
- GitHub Pages Documentation – *Free hosting for static websites*
 <https://docs.github.com/en/pages>
- Netlify Documentation – *Deploying static sites easily*
 <https://docs.netlify.com>
- Vercel Documentation – *Frontend deployment and hosting*
 <https://vercel.com/docs>

THANK YOU