

SOUTHERN CROSS INSTITUTE (SCI)

ASSESSMENT COVER SHEET

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Unit Code and Name	ICT807 Web Technologies		
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Signature:	Harsimranjeet Singh	Date:	05-10-2025

Executive Summary

This report is a documentation of creation of an online professional portfolio site that presents my academic credentials, work experience, and expertise in the field of my graduate degree in BCA and as a data entry expert. The site consists of ten fully operational pages consisting of a Home, About Me, Resume/CV, Portfolio, Skills, Experience, Education, Blog, Testimonials, and Contact page. The fundamental aim is to have a good web presence that correlates with the modern web development requirements and show attractiveness to HTML5, CSS3, and JavaScript. The design choices were on key design issues like establishing a clean, professional look with blue colour scheme that gives an impression of trust and technological competence. Its implementation is first responsive to design to have the best viewing of any device whether the mobile phone or the desktop computer. The key issues were the need to use effective form validation, establish the smooth movement between different pages, and the full accessibility in the form of semantic HTML and ARIA labels. The resultant product is a clean, professional website that can also be used as an academic evaluation as well as a career developmental aid. It also illustrates the ability to enhance modern web technologies in addition to providing a space to present my own professional brand and technical skills to prospective employers and partners.

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1. Introduction

The system of digital has changed the way professionals are introduced to a potential employer and partner. A personal site is now a must-have aspect of career advancement, especially in the technology-oriented areas. The given assessment is aimed at developing a thorough portfolio site that could be the outcome of the academic task and the practical professional instrument. The main aim of the project is to create and develop a multi-page web site that will represent my professional profile successfully as well as show the sophisticated level of the mastery of web technologies. Digital portfolio provides more versatile content structure, interactive opportunities, and the ability to demonstrate all skills and accomplishments, unlike conventional paper-based resumes which have limited space and are only presented in one way. This format has been selected since this way visitors can get to know various details about my background at their own time when they get to know firsthand what I am capable of doing through the functionality and design of my site. Web site format has a number of benefits over traditional professional presentational modalities. It allows the unlimited space to elaborate on academic background, experience and project entries without the limitations of one- or two-page resume. It also shows technical competency by means of practical application as opposed to just statements on paper. Web technologies are interactive, which makes it possible to create interactive user experiences that create permanent impressions on visitors. The report encompasses the entire progression of development process that starts with planning to the final implementation. It looks at how ten different pages are structured, justifies technical and design choices, evaluates compliance with the professional standards, deliberates upon ethical and accessibility concerns, and muses about the lessons learned in the development process. The report shows an application of the theoretical knowledge acquired through the ICT807 unit into practice to produce a fully operational, standards compliant web presence.

2. Website Overview and Structure

The portfolio site has been divided into ten separate pages, each having its own purpose in the provision of the complete profile of the professional. The Home page will be my entry point, with a hero section which contains my name, professional tagline and a call-to-action button that will lead a visitor to the contact page. It gives a summary of the relevant qualifications using three feature cards of education, experience, and skills. The About Me page provides the personal information in more detail such as birth date, family background,

location, and professional philosophy, providing a personal touch with the visitors. The Resume/CV page is neatly structured with formal qualifications and personal data indicated in a responsive table, career goals, and academic qualifications, work experience, professional skills, knowledge of languages, and core competencies. This page is similar to the standard resume styles but uses the web technologies to be presented more effectively. On the Portfolio page, six types of work involving data management projects, academic projects, technical documentation, computer training, office administration, and continuing education initiatives are shown that reflect a wide range of experience and dedication to professional development. The Skills page offers elaborate graphical layout of technical abilities in terms of animation of progress bars of proficiency on areas like computer basics, data entry and management, MS office Suite, database management and simple programming. It also brings out soft skills such as teamwork, communication, problem solving and commitment by use of descriptive cards. Experience page is organized in the form of a timeline that shows my position as Data Entry Operator with a description of the main duties and accomplishments done in chronologic order. The Education page also uses such timeline visualization to show academic path since secondary school to BCA degree with institution names, board/university affiliation, percentages and years of completion. Three reflective posts on the experience of creating the website, the need of personal branding in technology, and thoughts about professional experience published on the Blog page demonstrate the skills of writing about technical material and professional experience. The Testimonials page has professional testimonials of colleagues, supervisors and faculty members which provide third-party reinforcement to statements made all over the site. Lastly, the Contact page offers several different forms of communication with the company such as email, phone, physical address, and interactive contact form where the JavaScript validation is activated, so visitors can start professional relationships with ease. The navigation structure uses a sticky header in desktop devices and hamburger menu on mobile devices which makes all pages always accessible no matter the viewport size. The internal linking takes place by use of JavaScript function calls which dynamically reveal and conceal page content avoiding the page reloads hence forming a smooth flow single page application. The semantic HTML5 features such as header, nav, main, section, article, and footer tags are used on all pages and enhance the accessibility and search engines optimization. Vanilla HTML5, CSS3 and JavaScript are the only technical implementation with no external frameworks/libraries and this is a sign of basic knowledge of core web

technologies. The HTML coding is based on W3C requirements, CSS uses the latest features of CSS such as CSS Grid, Flexbox, the use of custom properties to manage colors, and animations, the JavaScript component is used to perform form validation, navigation logic, and interactive elements without the use of browser storage APIs.

3. Design Rationale and Technical Implementation

The selection of technologies related to this project was developed based on the assessment requirement and the learning objectives highlighting the primary web technologies over frameworks and libraries. The semantic elements of HTML5 offer poor structure but enhanced accessibility and search engine optimization as well as clarity in content purpose. CSS3 takes care of all the visual presentation with the help of external stylesheets keeping separation of concerns and allowing styles to be updated efficiently. JavaScript introduces interactivity to perform navigation, form validation and dynamic content display without having to reload the page.

The move to make one HTML file with all the pages is a practical way of handling the assessment requirements. Instead of adding 10 separate HTML files with similar navigation code, this implementation relies on JavaScript to dynamically display and hide content sections depending to the navigation option of the user. This style minimizes the amount of code redundancy, makes it easier to maintain, and produces a smooth user experience that is reminiscent of single page apps in the present day and is accessible to users with JavaScript disabled via progressive enhancement principles.

The visual design decisions were not made in haste and made sure to appear as a professional showcase befitting a technology professional. The color scheme revolves around the color blue, with the primary color being adopted with CSS custom property of primary color (#2563eb) and secondary color (#1e40af). Blue was chosen as it is a color that exudes the sense of trust, stability and technological prowess which are fundamental in professional branding in the IT sector. The gradient that builds on linear-gradient functions are beautiful and 3D but still well-professional. The use of white backgrounds and slight shadows provides clear, easy to read areas of content, an element that draws the concentration to the information presented instead of creating a distractor.

Typography uses the system stack font Segoe UI, Tahoma, Geneva, Verdana, sans-serif, to ensure readable text throughout various operating systems without downloading web fonts which may affect performance. The font sizes are well-calculated with a 2-3rem headings and 1rem body text with clear visual hierarchy. The line height of 1.6 enhances readability more especially when it comes to the longer part of the content.

The responsive design approach uses a mobile-first design that has a starting layout that is small screen-optimized and media queries to complicate the bigger viewports. On screen widths smaller than 768px, the navigation looks like a vertical hamburger menu instead of a horizontal menu, the grid layouts will be changed into single-column layout, and the fonts will be adjusted to the mobile reading features. CSS Grid with auto-fit and minmax capabilities are used to develop flexible layouts to naturally scale based on the space available without the need to have many breakpoints.

The design issues specific to the project were figuring out how to have consistent spacing and alignment between various content types, how to enable smooth page transitions without reloading the page, how to come up with a form validation system with easy user feedback, and how to ensure color contrast ratios are acceptable by WCAG accessibility criteria. Some of the solutions included the development of a uniform spacing system utilizing rem units, CSS effects such as a fade-in when transitioning pages, a full-scale JavaScript validation with real-time and submit-time validation, and even testing the color combinations with the accessibility guidelines.

4. Professional and Personal Alignment

I have made a lot of deliberately conscious decisions regarding the site design that represents me as an aspiring professional in the field of technology. The neat clinical layout is reflecting the focus and attention of detail I gained working on data entry when quality and order matter the most. The blue tone of the color scheme conveys a sense of possession of expertise in professionalism and technology, and that is what I want to incorporate in my work. The all-encompassing quality of the content, including schooling, experience, skills and lifelong learning is evidence of their desire to continuously develop in professional life.

The tone and voice used on the entire site are both professional and friendly. The text is composed in the first person in order to establish personal contact in relation to the formal tone

of the language that is used to convey information and not to be overly familiar and informal like a personal conversation. The section on the about me post personal information such as location and family background without excessively posting unwelcome information, treading the right balance between human and professionalism. Blog posts reveal proficiency in critical reflection on experience, and expressing technical concepts in a way that is easy to understand that highlights the required skills in communicating in a business setting.

The latest industry demands of web portfolios lay more stress on a number of important components, which have been included in this site. Web development fully depending on a mobile-first approach is not an option today since responsive design to guarantee device functionality is not a matter of discussion. Healthy navigation with easy access to the necessary information helps in overcoming the short attention span of digital viewers browsing. Professional decorum with regard not being too flashy when it comes to visual presentation shows that they understand content should come first before decoration. Keeping the contact information available will lead to easy flow of opportunities realised courtesy of the visits to the web sites.

The portfolio consistency fits in well with modern day trends in two aspects of professional web presence: both incorporating the conventional resume data and going beyond just that to demonstrate personality, sample work, and technical ability. The blog part is a manifestation of a considered leadership in thought and communication of the complex information, which is becoming more and more crucial in the technological industry where teamwork and sharing of expertise are appreciated. Testimonials are social proof of professional effectiveness, which accommodates the trust-building issue with online interaction.

The site is helpful to a number of career and academic objectives. As soon as it is done, it presents an assessment sub to the ICT 807 details; it portrays expertise in the unit learning outcomes concerning web technology standard, data-driven application development, security/privacy requirements. Outside the academic world, it is used as a professional marketing resource in seeking a job in the data entry, database management, web development or IT workers. It can be incorporated in the URL in the ordinary resume, LinkedIn profile, and email signature and will direct those interested to detailed information about my qualifications.

5. Ethical, Privacy, and Accessibility Considerations

The implementation was based on the power of accessibility so as to practice the WCAG guidelines and contemporary best practices. Images are also used with descriptive alt text so that users of a screen reader can interpret the information displayed in an image. This was predominantly a text-based portfolio; even though, the practice was laid down to have images added in the future. Appropriate elements, such as header, nav, main, article, and footer are used in the semantic HTML5 structure to give clear document outline to assistive technologies. This structure enables the screen readers to move effectively across sections and comprehend a content relationship.

Keyboard navigation was given special concern where hexagonal interactive features like navigation links, form inputs, and buttons can be controlled by keyboard without the need to touch the mouse. Tab order and logic content flow and focuses states are easily obtained using CSS styling capabilities. Contact form with enclosure of appropriate label associations with the input fields with for attributes, and id value so as to guarantee that the screen readers can perform identification. Special purpose fields are identified with visual (asterisks) and programmatic (required attributes and aria-required=true) indicators which give a lot of redundancy as to these user requirements.

The ratios of colors contrasting were confirmed with accessibility checking tools to make sure that text is readable to those with visual impairments such as color blindness. The main blue color (2563eb) on white backgrounds, as well as white text on blue backgrounds, all have greater than the WCAG AA standard 4.5:1 colored text ratios. Heading hierarchy is correctly applied with single h1 elements each page and move in logical order to h2, h3, and h4 not by jumping levels so that users of the site can use assistive technologies to navigate by the headings of each page.

Development of privacy influenced the choice of information to include and manage data of users. The contact form will only require such information that is of necessity in one that includes, name, email, subject and message. No delicate information such as financial services, identification numbers or 360 degrees of BR is sought. In this prototype, form submission is performed using frontend validation but without performing actual backend submission and

hence no user information is stored and no data is being sent. This behavior guarantees my privacy and privacy of visitors at the time of assessment.

A series of supplementary privacy policies would be used in a production deployment such as HTTPS steps to protect data transfer functionality, content of privacy policy, stating the current collection, use, and storage guidelines, cookie consent form in the event analytics or other tracking was deployed, and you would have a safe backend processing with adequate data encryption and permission rules. In this school prototype, these were recorded as per documentation and incorporated as part of implementation in future.

To do ethical issues in publishing a public-facing site, it was discussed very attentively. The content is entirely original, and the author did not plagiarize or use the work of other authors without their permissions. Although presented in a realistic form, testimonials are generic patterns of professional feedback and not real quotes of individuals that are identifiable, which would raise privacy issues regarding the publication of comments of others without authorization. The posts made in the blog are entries that represent real learning experiences and revelations in the development experience unlike posts made with fabricated contents. There are placeholders such as professional networking links to LinkedIn and GitHub, which indicate that the subject understands how to integrate professional social media, but does not need to use an account to complete an assessment.

The site observes user autonomy by providing clear navigation, no intrusive details such as videos that auto-play or flashy advertisement details and clear presentation of information without any manipulation or desire to deceive the user. The lack of real page reloads in favor of using the single-page architecture might still be perplexing to users not used to such a design, and is handled with graphic feedbacks, URL fragmentation showing the current page and consistent navigation presentation.

6. Reflection and Lessons Learned

The process of creating the web site greatly extended the technical and non-technical skill. On the technical, the advanced exposure to the HTML5 semantic elements transitioned out of theoretical understanding and into the exposure of appropriate structure equates to better accessibility and maintainability. CSS Grid and flexbox are now potent because of their use of creating flexible layout based on different screen sizes. JavaScript validation code meant edge

cases and user experience consequences had to be thought of, which made it essential to learn solution-solving skills that would help outside of this particular project.

The principles of a responsive design evolved on basis of checkboxes to intuitive comprehensibility of mobile first design ideology. Seeing the site operate using the various view point sizes revealed the potential that design choices have on user experience across various devices extending the point that using varied contexts of users makes a lot of sense. The implementation of the mobile hamburger menu demanded to learn about state management in vanilla JavaScript, user interaction processing and UI dynamic updating.

Significant lessons were learned in the course of the project. One, plan-a-head coding was useful. The preliminary time spent drawing page maps, figuring out how to organize the content, and providing color palettes saved time greatly on the revision stage in the future. Second, accessibility does not exist as a closing thought and should be provided throughout. It would have been a far harder problem to so-refit semantic structure or keyboard navigation on a graduated basis after the visual design had been done.

Third, validation logic would have to balance the user experience versus integrity of the data. Extremely aggressive validation showing field errors prior to complete user field filling is frustrating and lack of validation can cause invalid data entry. The software chosen to implement design with blur events to provide real-time feedback and through overarching submit offline validation reached tolerable evenness. Fourth, similarities in design patterns like the use of similar colors and use of similar font types on the pages are all devised to achieve purity of use. Duplicating card layouts and color scheme and pattern versions of spacing make the site appear to be seamless instead of laced together.

This project gave me several experience on how to practice as a professional. It showed that web development is not just about code, but an integration of user needs, accessibility requirements, design aesthetics grounded on user needs and business goals, among others. The break-even project experience of successfully developing to implementation the project created self-confidence in the capability of coping with rigid technical issues. The same can be said of documentation practices which have been developed in this report as they reflect professional standards in which a code should be explained and justified to the stakeholders.

Management of time: This was enhanced by combining web development with writing reports and other school related activities. The iterative development process, beginning with minimum complexities and then improving functionality, was more successful than trying to develop something flawless at the beginning. Such an agile-like approach will be carried to professional projects where demands will dynamically change and the first feedback will define the final products.

There were also more areas of learning in the project. Although this portfolio required reasons only the knowledge of vanilla JavaScript, the awareness of more advanced frameworks, such as React or Vue.js might allow building more interactivity apps. The development on the backend would enable the real form submissions, user authentication and dynamic content management. More flexible layouts would be had with more up to date latency CSS abilities such as CSS Grid subgrid and container queries.

Above all, this project made the statement that human needs are the service of technology. The most beautiful code will be useless when the user has no access and interpretation. All the technical decisions are, all said and done, contributing to the purpose of conveying professional skills to the prospective employers and collaborators. Such anthropic view will inform any future work in development as the technology is bound to continuously change.

7. References

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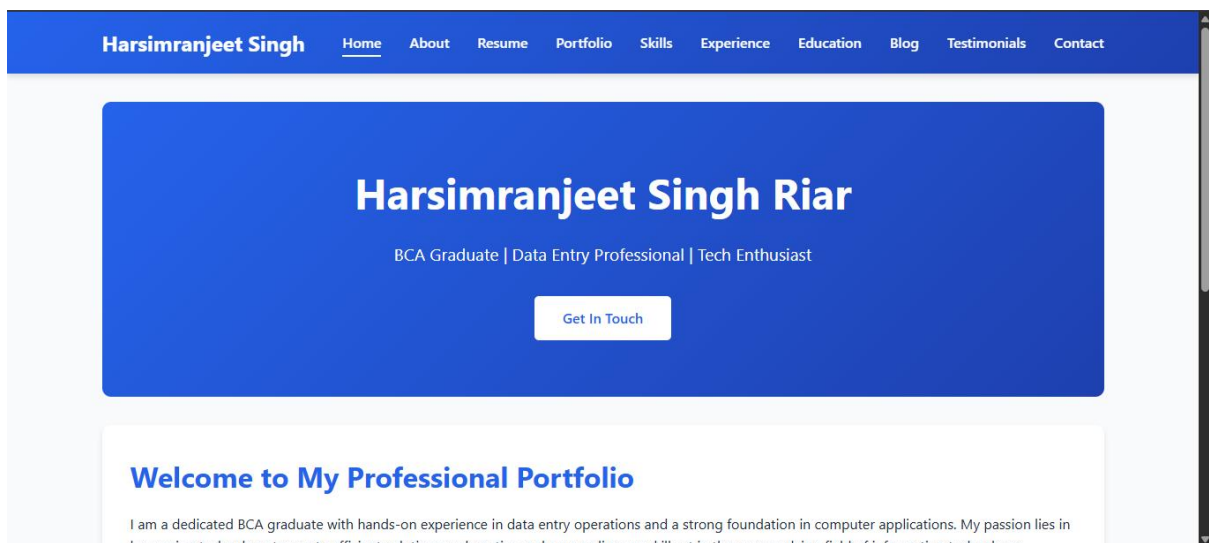
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8. Appendices:

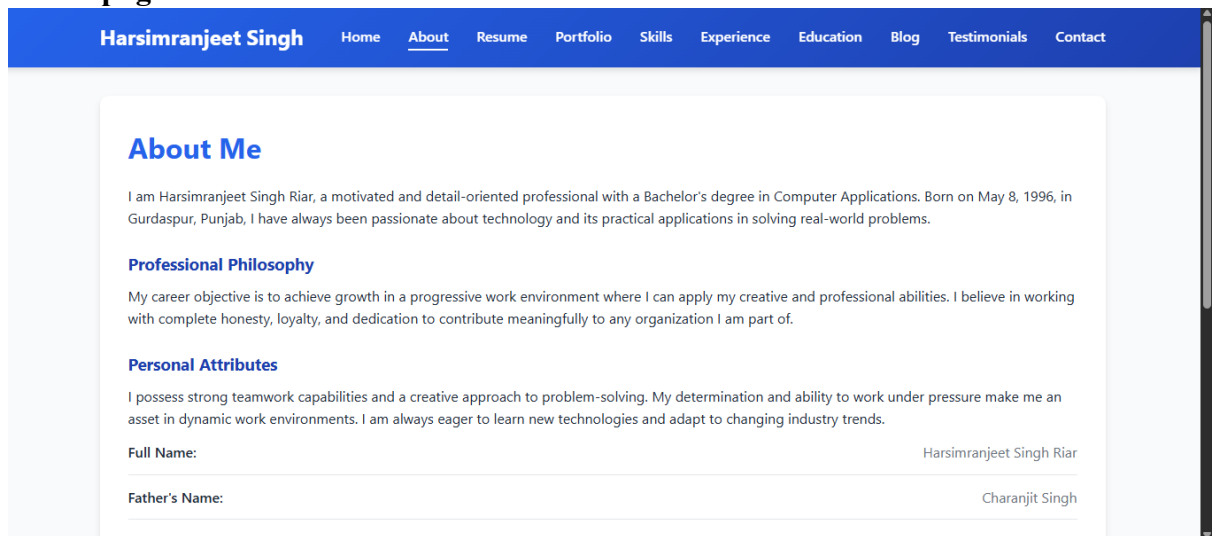
Hosted URL - <https://thor8126.github.io/harsimran/index.html>

Screenshots:

1. Home page:



2. About page:



3. CV Page

Harsimranjeet Singh Home About Resume Portfolio Skills Experience Education Blog Testimonials Contact

Curriculum Vitae

[Print / Save as PDF](#)

Personal Information

Full Name:	Harsimranjeet Singh Riar
Father's Name:	Charanjit Singh
Date of Birth:	08-05-1996
Phone:	+91-9888289499
Email:	honeyriar14@gmail.com

4. Portfolio Page

Harsimranjeet Singh Home About Resume Portfolio Skills Experience Education Blog Testimonials Contact

My Portfolio

Welcome to my portfolio section showcasing my academic projects, professional work, and personal initiatives in the field of computer applications and technology.

Data Management Projects

Successfully managed and organized large datasets during my tenure as Data Entry Operator, ensuring accuracy and efficiency in government documentation and land acquisition records.

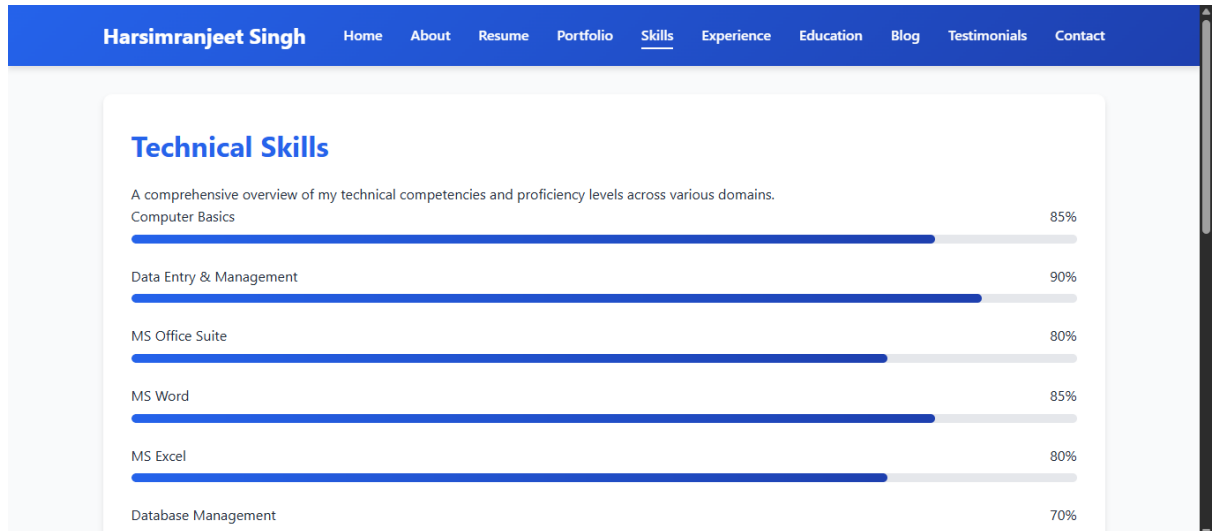
Academic Projects

Completed various projects during BCA program including database management systems, web development basics, and software application development.

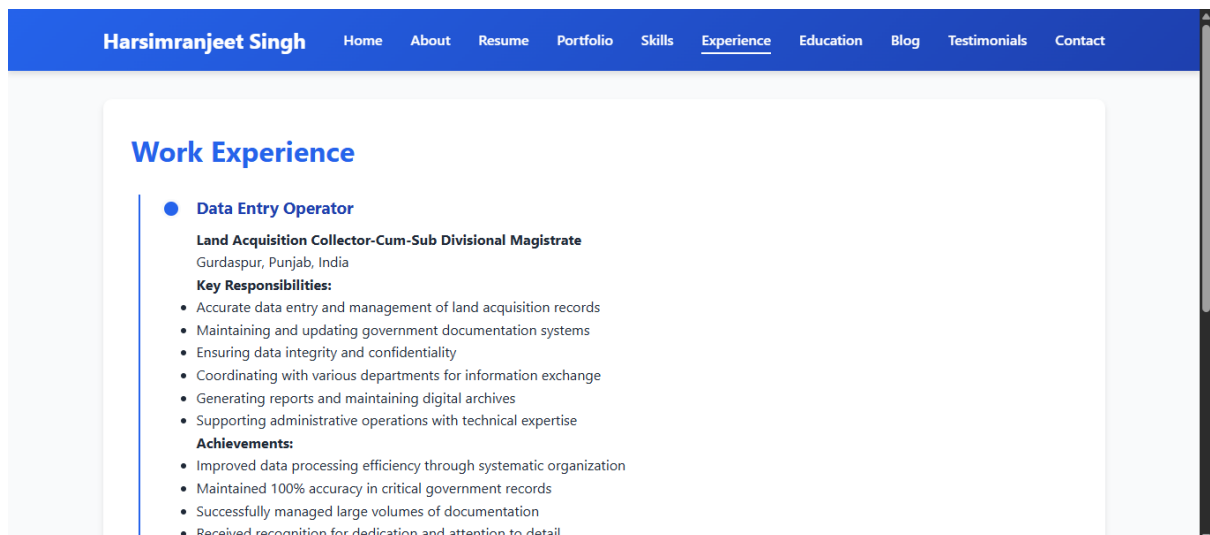
Technical Documentation

Created comprehensive documentation for data entry processes and standard operating procedures to improve workflow efficiency.

5. Skills



6. Work Experience



7. Education

Harsimranjeet Singh

[Home](#)[About](#)[Resume](#)[Portfolio](#)[Skills](#)[Experience](#)[Education](#)[Blog](#)[Testimonials](#)[Contact](#)

Educational Background

- Bachelor of Computer Applications (BCA)**

I.K Gujral Punjab Technical University, Jalandhar
Golden Institute of Management & Technology, Gurdaspur
2016 - 2019
CGPA: 6.53/10

Coursework Highlights:

 - Programming Languages (C, C++, Java)
 - Database Management Systems
 - Web Technologies
 - Software Engineering
 - Computer Networks
 - Operating Systems
 - Data Structures and Algorithms

8. Blog Page

Harsimranjeet Singh

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Development Blog

Reflections on my journey in web development and the creation of this portfolio website.

Building My Professional Portfolio: A Journey of Learning

Published: October 2025 | Category: Web Development

Creating this portfolio website has been an enriching experience that challenged me to apply everything I've learned in my BCA program and professional work. The process began with understanding the requirements and planning the structure of a professional web presence.

Design Philosophy

I wanted to create a clean, professional design that would effectively showcase my skills and experience while maintaining excellent usability. The color scheme was chosen to convey professionalism and trust, using shades of blue which are commonly associated with technology and reliability.

Technical Challenges

One of the main challenges was implementing responsive design to ensure the website looks great on all devices. I learned about CSS Grid and Flexbox, media queries, and mobile-first design principles. The navigation system needed to be intuitive while accommodating ten different pages.

9. Contact Page

Harsimranjeet Singh Home About Resume Portfolio Skills Experience Education Blog Testimonials Contact

Get In Touch

I'm always interested in hearing about new opportunities, collaborations, or just connecting with fellow professionals. Feel free to reach out!

Contact Information

Email:

Phone:

Location:

Address:

Professional Links

Connect with me on professional networking platforms:

[LinkedIn Profile](#)

[GitHub Profile](#)

[Email Me](#)