PROJECT REPORT

Executive Summary

This paper describes the inception and evaluation of a personal computer science portfolio. The portfolio, presented in an organized online format, demonstrates academic history, technical skills, employment experience, and personal interests to strengthen applications for a working student position. The website was constructed and published using all the necessary tools such as GitHub Pages, HTML, CSS, Visual Studio Code, and Git. The portfolio was intended to demonstrate the student's competency in digital presentation techniques, version control concepts, and web development. It creates a professional space to communicate with potential employers within the computer science discipline and reflects on how important it is to maintain a proper online presence.

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1. Introduction

In this research, a personal computing science portfolio has been developed with respect to assessment. To assist in applying for a working student position in computing science, the portfolio was developed as a technical exhibit. It acts as an online representation of the learner's academic background, practicalities, technical know-how, and hobbies.

The purpose of the portfolio was to extend Rajkaran Singh's reach to prospective employers through an integrated and facile navigable online profile. It captures his relevant training, professional background, key skills, programming, and languages. Printable CV based on LaTeX, links to technical assignments and GitHub repositories, as well as career objectives is also included within the portfolio.

The portfolio, created and maintained using GitHub Pages, contains the important sections: “About Me, “Education”, “Experience”, “Skills”, “Languages”, and “Contact”. Each section has been carefully sculpted to represent both the professional capability of the student, as well as the character of the individual; ensuring a balanced representation of engagement in technical skills, as well as engagement in interpersonal skills.

As for computer science students, having an online presence gives them a distinct advantage over their competitors in the technologically changing, competitive market. A thoughtfully created online portfolio showcases creativity, resourcefulness, and a commitment to self-marketing along with technical abilities. Unlike a standard resume, this type of portfolio gives employers a complete picture of what a candidate can do. This paper explores how to create the portfolio, its organization, and its future opportunities, while looking at how effective it can be for advancing one’s career.

2. Portfolio Website Design and Implementation

This chapter will present the design architectural, representative, and technical choices that we made in creating the computer science portfolio website (Pierre, 2020). The website serves the purpose of communicating his employer biography and technical practices in a user-friendly, uncomplicated and accessible way.

2.1. Structure of the Website

The portfolio webpage is organized into a number of distinct sections that give an interesting overview of his background and qualifications. The main sections are:

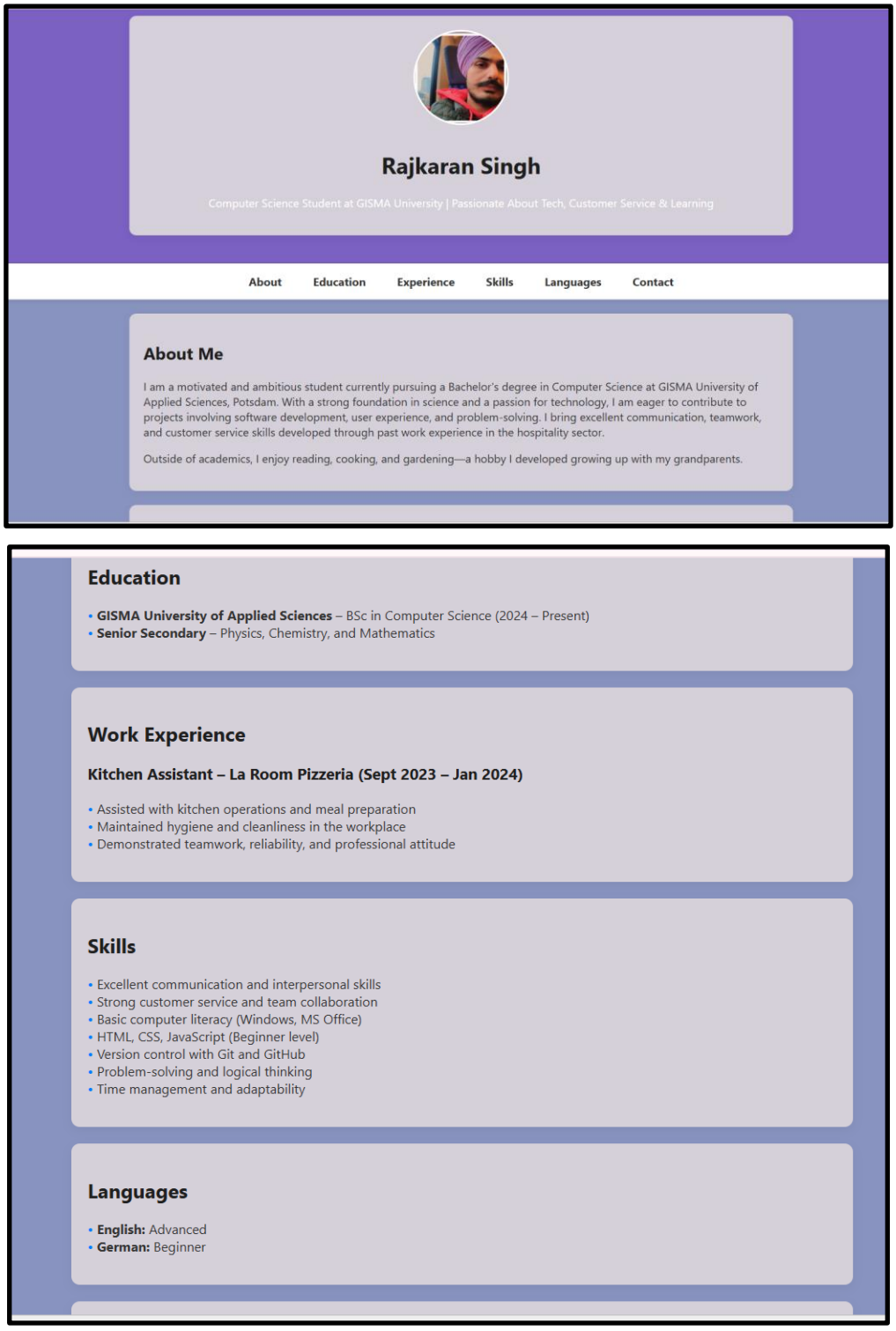

Figure 1: Website

(Source: VS-code)

- About Me: This section showcases the student's character, interests, and career aspirations. It has a brief biography including some of his hobbies and interests, in areas

such as cooking and gardening, and also explains his reason for choosing a career in computer science.

- Education: This section explains the educational history including previous senior secondary subjects in Maths, Physics, and Chemistry, as well as current computer science study at GISMA University of Applied Sciences.
- Experience: This section presents his previous work experience, the most significant of which is he worked at La Room Pizzeria as a kitchen assistant. It also emphasize how he grew in terms of communication, teamwork, and customer service skills during this time.
- Skills: Both technical and soft skills are listed in this section. It covers problem-solving techniques, interpersonal communication, and fundamental computer science concepts including HTML, CSS, JavaScript, and basic Git use.
- Projects: Technical exercises, GitHub repositories, and tiny programming projects will be displayed in this area, which is set aside for upcoming updates.
- Languages: This list includes advanced competence in English and beginning skill in German.
- Contact: To make it easier to communicate with possible employers, basic contact details are included, along with links to GitHub and email.

A fixed menu bar facilitates navigation, making it simple for users to navigate between sections. The layout's single-page scroll style guarantees smooth transitions and rapid information access (Mamilov and Atayeva, 2024). The user experience is enhanced by the logical ordering and straightforward presentation of all material.

2.2. Design Decisions

The design conscious decision was made to employ a clean, bare bones layout that prioritizes accessibility and readability. The graphic design employs legible type faces, consistent sectioning and plenty of white space to make the text easily readable.

A polished and understated color palette featured soft backgrounds along with gentle accents on titles and hyperlinks. This creates a calm, refined design, suitable to a computer science portfolio, by eliminating elements that are either very bright or distracting (Khriji *et al.*, 2022).

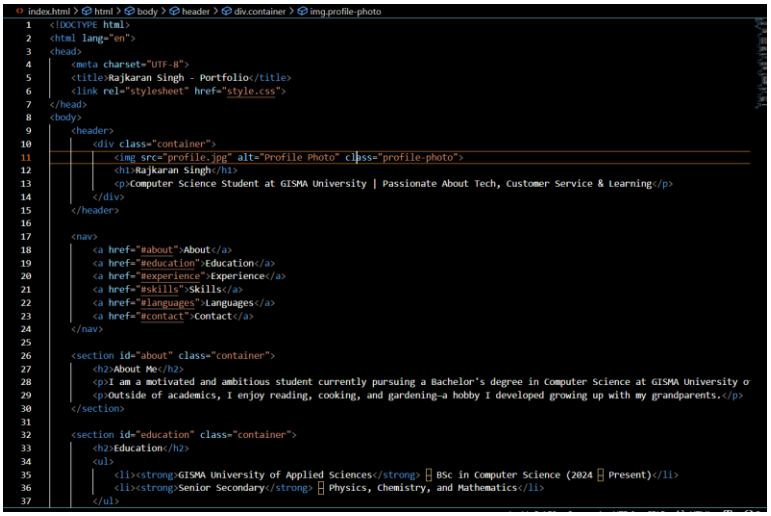

Figure 2: HTML page

(Source: VS-code)

The website's designs were made using Custom CSS, giving the creators the ability to manage how it adjusts, its arrangement, and the text style. The layout is fully responsive and, therefore, it automatically fits any screen size and device such as smartphones, tablets, and PCs. This is a vital aspect of modern web development that ensures consistency and accessibility across devices.

Figure 3: CSS page

(Source: VS-code)

Moreover, to make personal branding and humanize the portfolio, the section with a profile photo was added to the top of the page. The photo makes the professional information more personal and allows the employers to match a face to the name.

2.3. Hosting via GitHub Pages

The portfolio is hosted on GitHub Pages, a free service that allows static webpages to be deployed directly from a repository. The deployment process included creating a public repository, copying all of the website files (HTML, CSS, images, etc.), and enabling GitHub Pages from the repository's settings.

Since the website's source code is publicly available in the GitHub repository, providing version control and visibility. The repository also contains a README file that explains the project structure and walks users through the content.

There are numerous advantages to using GitHub for version control and hosting. It ensures that each version of the project is saved, allows for easy updates and collaboration, and demonstrates proficiency with important software development tools (Patani *et al.,* 2024). GitHub Pages also affords another layer of visibility by offering a publicly visible and shareable URL, which can be embedded in emails, social media accounts, and applications.

Overall, the portfolio's design and implementation are centered on professionalism, clarity, and utility - all of which are necessary factors to make a recognizable impact in the IT industry.

3. GitHub Repository Structure

In order to ensure usability and good maintenance the portfolio's GitHub repository has a clear organization. The root folder contains the required files to extract and run the website: `style.css` for individual styling of the website and `index.html`, so that all of these portfolio contents semantic and presentational processes. The portfolio workflow is informed by files that function independently.

Static resources (or any type of generic icon-based resources) and profile images are catalogued into a specific folder called `/assets`. The purpose of this organization is to keep your media files together, accessible and for your own sake, organized protecting your repository from unwanted file-keeping to have easier and smoother contributions.

Additionally, Rajkaran Singh created a LaTeX-based resume that is disabled until a user decides to open it.established a folder for the LaTeX based CV (/resume) both in .text and .pdf format so that a user or an employer reads or downloads the document at will.

Finally, because a good package is not complete without instructions for use, an excellent `README.md` file is included in the repository. Insofar, this documentation had shown that they appreciated the presentation of their portfolio professionally, clearly, the importance of versioning control and good development practices.

4. Tools and Technologies Used

The creation of the portfolio website involved various commonly used, modern tools and technologies that support contemporary web development practices. The selected tools were chosen because they were easy to access, reliable, and appropriate in professional settings.

Platform

Visual Studio Code (VS Code) was the main code editor where HTML and CSS files were written and implemented. The code editor had robust capabilities such as syntax-highlighted writing, extended capabilities for live server previews, and Git integration. It had a relatively easy interface to use, and offered real-time feedback during development to enhance organization and efficiency.

HTML & CSS

The portfolio website was structured and styled using HTML5 and CSS3. In this respect, HTML was utilized to build the layout and content, while CSS was used to implement the design aspects, such as color schemes, typography, spacing, and responsiveness. These primary web technologies ensured that the site was structured, readable, and compatible with different devices (Kumalasari *et al.*, 2023).

Git & GitHub

Git supported the version control system and allowed the tracking of changes throughout the development stages. GitHub hosted the repository and kept the codebase, as well as promoting collaborative work and public access to the portfolio website (Chen *et al.*, 2025). Regular commits to the repository were pushed, to maintain records of progress and updates.

GitHub Pages:

The live version of the portfolio was launched on GitHub Pages. By using this platform, Rajkaran could directly host the static website from his GitHub account, removing the requirement for external hosting services and creating a clean, accessible URL.

Optional Tools:

Canva was used to design and edit the profile picture to ensure that it fit the style of the site. The Markdown (README.md) was used to document the fully structured project. The Live Server extension for Visual Studio Code made it easier to see local previews while building my project.

All of these resources together allowed creating a successful process of web development faster and more efficiently.

5. Reflection: Strengths and Weaknesses

As I think about putting together my computer science portfolio, I feel that the project meets its main goals. It emphasizes my training, skills and work experience and portrays a clear and refined image of my profile. It is not all bad, however, similarly to any premature version of a digital product.

5.1. Strengths

One of the strongest sides of my portfolio is its clean and tidy design. Divided into such sections as "About Me," Education, Experience, and Skills, I focused on the fact that the layout should be convenient in use. The users visiting my profile can effortlessly follow its visual hierarchy due to the simplicity of style and visual structure.

Easy to navigate is another benefit. As a result of the single-page scroll design and fixed navigation bar, users can move between sections in a clear and straightforward manner. This intuitive structure improves the overall user experience.

My educational, work history, and language level are also clearly displayed in the portfolio. Incorporating a profile picture adds a human element to the page. Lastly, the use of GitHub Pages to host the website ensures that it is reliable, available, and version controlled, as well as allowing me to demonstrate that I am familiar with tools that are integral to the IT industry.

5.2. Weaknesses

These advantages notwithstanding, the portfolio has several limitations. As it has been created purely with HTML and CSS, and because it is a static website, there is no scope for interactivity such as form validation or animations; and there is also no updating system as far as content that updates dynamically with JavaScript.

Moreover, presently there are not many technical activities in the portfolio. I plan to add programming activities, side projects, and contributions to open-source repositories as my studies advance.

Lastly, there is no blog or updating system, and my portfolio will not capture and showcase my ongoing education, or technical insights.

6. Future Improvements

Multiple enhancements have been identified for future implementations of the portfolio in order to fundamentally improve the portfolio's functionality, layout, and professionalism. Additions will aim to make the portfolio more interactive, comprehensive, and better focused on the prominence of lifelong learning.

Downloadable Section of the CV: A clear area for CV download will be included in the main homepage, even if the CV is currently hosted within the GitHub repository. This will improve accessibility and professionalism by making it easy for a hiring manager to look through a candidate's CV in PDF form.

Project Demos and Embedded GitHub Statistics: Next iterations of the portfolio will demonstrate how work can be embedded, such as video walkthroughs on technical work or live code examples. Employers will also preferably understand coding activities and abilities by looking at GitHub statistics detailing contributions graphically and pinned repositories listed (Wang *et al.,* 2023).

Academic Reflections Blog Section A blog section will be added to generate discussions, chronicle learning experiences, and reflect on assignments and technical challenges. In addition to demonstrating writing and analytical skills, this will show an interest in the larger conversation about computer science.

Adding Contact Forms: Using services like Formspree or Netlify Forms, a contact form will be integrated with back-end functionality to improve communication. This will ease the burden of copying an email address and provide users with access to contact the website directly.

Multiple Language Support: Since there is fluency in English and has basic German proficiency, the portfolio will be developed as a bilingual portfolio to be accessible to a larger audience while targeting areas where German is spoken, and job opportunities may arise (Gitschthaler *et al.,* 2024).

Badges and Certifications: A section for badges or certifications from online learning environments such as LinkedIn Learning, Udemy, or Coursera will also be created. This will show he has taken the initiative to continue to upscale and improve his technological skills.

7. Conclusion

Creating a personal computer science portfolio has become a very rewarding project for the student. It is a professional resource to present his profile to future employers in a organized and user friendly manner, as well as to highlight his educational experience, technical skills,

and work experience. In a increasingly digital employment market, portfolios can aid applicant's in distinguishing themselves as having tangible evidence of their skills and responsibility to their career. For the purpose, the portfolio is a living record of their learning, practical experience, and self-directed development. A portfolio enhances the employability of the student, as it provides a comprehensive overview of the student's skills beyond a traditional resume, such as the student's organization style, their contributions to the project, and the communication style of these contributions.

The portfolio will need to be updated on an ongoing basis to ensure that it remains relevant and useful. As Rajkaran's experience grows, and he works on new projects or courses, or achieves new certifications, the portfolio will be a living document that illustrates Rajkaran's growth and adaptability in a rapidly changing industry.

In closing, this portfolio serves not only to help Rajkaran Singh reach his current target of being employed as a working student, but also to help establish a foundation that develops and maintains, a good online reputation. The portfolio will continue to serve as a resourceful reference by potential employers in the future, and will provide him way to build an identity for his professional career in Computer Science.

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