**Final Project Report**

Student: Tzu-Yu Ko

Uniqname: ktyko

Topic: Personal Portfolio Website

* **General Info:**
  + Final Project Presentation Slides Link: https://docs.google.com/presentation/d/18f6anrj7UWc4Uu6kQx2wheIqQWqeS3vqgEovJrhyOM4/edit#slide=id.g262cdddd93d\_0\_14
  + Site Link (Coding): <https://b04310041.github.io/SI539_final_project/>
  + Git Repository Link (Coding): <https://github.com/b04310041/SI539_final_project>
* **Weekly Progress 1**
  + Hours spent: 15 hours
  + Challenges:
    - Organize the information architecture for different pages
    - Adjust different arrangements for various screen sizes
  + Successes: (completed index.html)
    - HTML
      * Created an HTML5 document structure.
      * Included meta tags for character set and viewport settings.
      * Linked to an external stylesheet (style.css) and a font from Google Fonts.
      * Included the Font Awesome kit for icons.
      * Defined the structure of the webpage with sections such as profile, education, experience, and projects.
      * Added social media links with corresponding icons.
      * Implemented a navigation system with links to different sections.
      * Created a "Skip to Main Content" link for accessibility.
      * Included a JavaScript script for opening and closing a navigation menu.
    - CSS:
      * Reset default margin, padding, and box-sizing for all elements.
      * Applied a background gradient to the body.
      * Styled the profile section, including the image, name, role, social links, address, and contact details.
      * Styled the heading section with a title and navigation toggle button.
      * Styled the main content section with information about the person and a section on what they do.
      * Styled cards for different skills, including data analysis, data visualization, machine learning, and project management.
      * Styled the navigation menu for different screen sizes using media queries.
      * Added hover effects for social links, email link, and navigation items.
      * Made adjustments for larger screens, changing layout and styling accordingly.
      * Included styles for reduced motion preference, disabling transitions.
  + JavaScript:
    - Defined functions openNav and closeNav for toggling the navigation menu.
    - Additional Notes:
    - Ensured responsiveness with media queries for different screen sizes.
    - Used flexbox and grid for layout.
    - Applied hover effects for improved user experience.
    - Considered accessibility by including a "Skip to Main Content" link.
    - Considered reduced motion preferences for users.
* **Weekly Progress 2**
  + Hours spent: 3 hours
  + Challenges:
    - Identify some errors by using validators
  + Successes:
    - Completed education.html, work.html, and projects.html
    - Increase accessibility
      * Add “Skip to Main Content”
        + Each page has a "Skip to Main Content" link that only appears when it has focus (using the tab key)
      * Add arial-label attribute to empty link / button
      * Improved accessibility for scrollable content:
        + Made scrollable content keyboard-accessible, allowing users to navigate through content effortlessly.
        + Applied tabindex="0" to the scrollable container, ensuring it receives focus and is accessible via keyboard navigation.
        + Utilized :focus-visible styling for a clear focus indicator, improving visibility and usability for users navigating with the tab key.

**Final Results**

1. Improved User Experience: Cohesive information architecture and responsive design significantly enhanced user experience across devices.
2. Enhanced Accessibility: Inclusion of a "Skip to Main Content" feature and ARIA attributes improved website accessibility for all users.
3. Error Identification: Regular validation checks led to prompt identification and resolution of errors during development.
4. Scrollable Content Accessibility: Improved keyboard accessibility and visual indicators enhanced usability for all users.

**Lessons Learned**

1. Continuous Testing: Regular validation is essential for early error detection, emphasizing the need for continuous testing.
2. Accessibility Priority: Prioritizing accessibility from the start contributes to ethical standards and a better user experience.
3. Responsive Design Challenges: Challenges in adapting layouts highlight the importance of thorough testing across devices.
4. User-Centric Design: A user-centric approach results in a more intuitive and user-friendly website.