WAPH-Web Application Programming and Hacking

Instructor: Dr. Phu Phung

Student

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Short-bio: Kunal has keen interests in ethical hacking and secure software development.

Overview

This project is part of the coursework for the Web Application Programming and Hacking (WAPH) class. The goal was to create a professional profile website hosted on GitHub Pages that could be used as part of a job application. The site includes personal and educational details, technical skills, and live integrations with public APIs.

The portfolio also features a dedicated page introducing the WAPH course and the projects completed throughout it. The design was built using Bootstrap and enhanced with JavaScript for interactive functionality.

- Deployed Website: https://kethamaranahallisak1.github.io
- GitHub Repository: https://github.com/kethamaranahallisak1/kethamar anahallisak1.github.io

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Project Requirements and Implementation

General Requirements

- The website is deployed using GitHub Pages.
- It includes a resume section with name, headshot, contact email, education, experience, and technical skills.
- A link to a separate HTML page (`waph.html`) provides an introduction to the WAPH course and highlights course projects.

Non-Technical Requirements

- The site uses the Bootstrap framework for layout and styling, ensuring it's mobile-friendly and responsive.
- The design targets potential employers by maintaining a clean, readable, and professional structure.
- A visitor counter has been embedded using FlagCounter to track page views globally.

Technical Features

JavaScript Functionalities:

- A digital clock shows the current time and updates every second.
- An analog clock is built with dynamic rotation of hands using JavaScript.
- A "Show/Hide Email" button reveals or hides the email address interactively.
- An additional feature displays real-time advice fetched from the Advice Slip API.

Public API Integrations:

- **JokeAPI**: Fetches and displays a random joke every minute.
- **XKCD API**: Shows a random XKCD comic with title and image.
- **Weather**: Fetches live weather data based on the user's geolocation, using OpenStreetMap and Open-Meteo APIs.

A disclaimer has been added to clarify that the content from external APIs is not owned or controlled by the site owner.
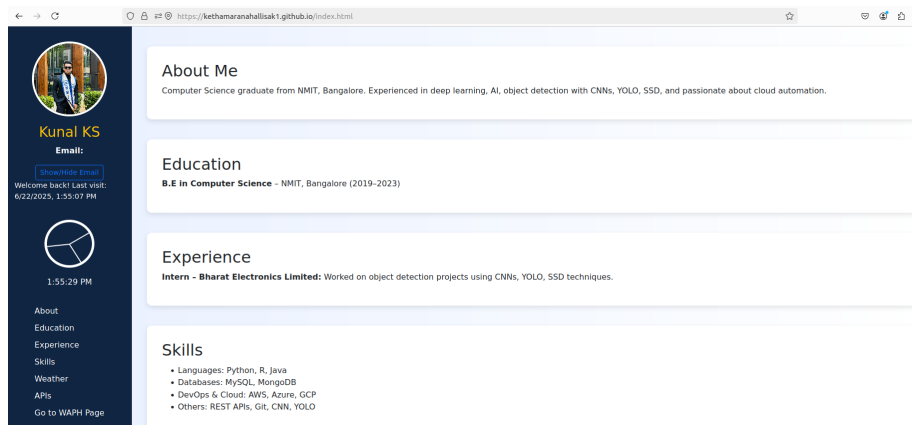
Cookie-based Visit Tracking:

- First-time visitors are shown a welcome message.
- Returning visitors see a message with the date and time of their last visit, stored via JavaScript cookies.
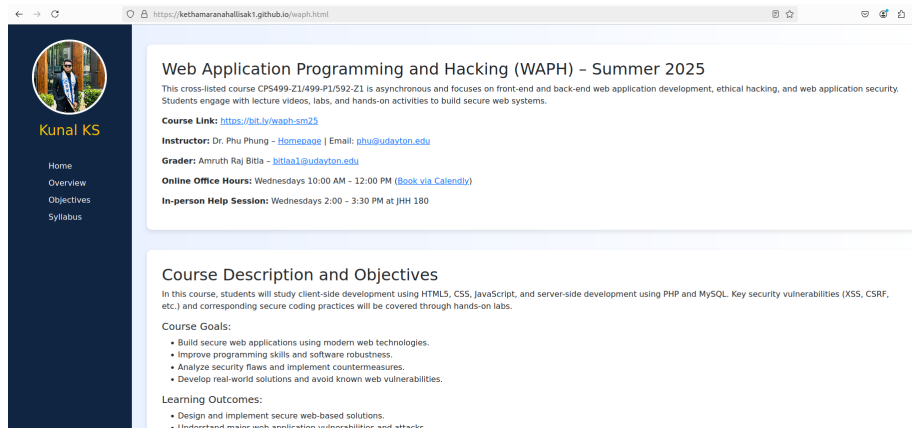

Screenshots

Below are screenshots of the working features of the site. These will be added before submission:
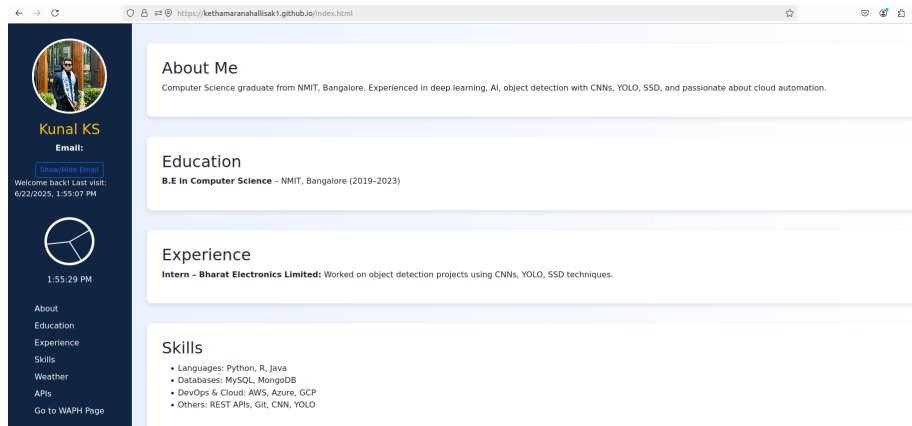
- Home page with sidebar and digital/analog clocks

- Joke, XKCD comic and advice sections showing live API data

- WAPH course page

Conclusion

This project gave me hands-on experience in building a functional, client-facing website using front-end technologies like HTML, CSS (via Bootstrap), JavaScript, and third-party APIs. I gained a better understanding of integrating real-time data, user tracking through cookies, and deploying a live site on GitHub Pages.

The result is a personal portfolio that reflects both my technical skills and academic work, and it serves as a professional point of contact for future opportunities.