Khalid Portfolio | Final Web Application

SWE 363 – Assignment 4

Final interactive portfolio combining all assignments

Responsive, API-integrated, and professional

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Features Overview

- Dynamic greeting and session timer

- Dark/Light mode with LocalStorage

- Projects filter/sort/search + show/hide

- Contact form validation (required fields, email regex, min length)

- GitHub API integration (latest repos + stars/updated date)

- Skills Heatmap (new): focus filter, strength slider, keyboard navigation

- Smooth CSS animations and responsive layout

Technical Implementation

HTML5 + CSS3 + Vanilla JS (ES6)

GitHub REST API for live data

LocalStorage for theme, filters, experience level, skills focus

Deployed via GitHub Pages

Live: https://khalidd0.github.io/assignment-4/

AI Integration

Tools: ChatGPT (GPT-5/Codex)

AI assisted with planning, UI copy cleanup, skills heatmap idea, deployment notes

I rewrote/adapted code for persistence, keyboard UX, and accessibility

Demo Highlights

- Hero: save name + greeting; session timer
- Experience buttons adjust project defaults
- Projects gallery: filter/sort/search; show/hide toggle
- GitHub repos: enter username → refresh → cards with stars/updated dates
- Skills Heatmap: focus select, strength slider, arrow keys + Enter to pin
- Contact form: validation errors and success feedback
- Responsive design across screen sizes

Challenges & Solutions

Encoding artifacts → rewrote all copy in ASCII

Keyboard UX for heatmap → simplified navigation and Enter-to-pin focus

Styling consistency → unified CSS tokens, grid, and transitions

API errors → friendly status and 404 handling

Future Improvements

Add email/form service backend for contact

Lighthouse pass + image compression/lazy-load

More project data from JSON feed; richer tags

Selective motion/animation polish

Conclusion

- Built a complete responsive portfolio with saved state and API integration

- Added unique Skills Heatmap feature with accessibility in mind

- Applied responsible AI usage and documented it

- Live demo: https://khalidd0.github.io/assignment-4/