

# SWE363 PORTFOLIO



**YAZEED FARIS**

**SWE363 SEC1**

# OVERVIEW AND OBJECTIVES

**THE GOAL OF THIS SERIES OF ASSIGNMENTS WAS TO APPLY SKILLS LEARNED BY THE COURSE TO DEVELOP A PORTFOLIO WEBSITE SHOWCASING THE FOLLOWING:**

## LIVE GITHUB ACTIVITY

Showcasing real-time coding contributions and project updates

## OVERVIEW OF MYSELF

The main objective of a portfolio is to give the reader a first impression of who I am, and what I do - and I tried to create a portfolio that reflects who I am as a person and student

## PROJECTS

The portfolio is a great platform to showcase past projects, and that's exactly what I did here

## hero section

A screenshot of a dark-themed portfolio website. At the top left, it says "PORTFOLIO". Below that is a circular profile picture of a man wearing a traditional Saudi headdress. To the left of the profile picture, the text reads: "Hi, I'm Yazeed. I'm a CS student @ KFUPM." Below this is a paragraph: "I made a major renovation to my portfolio site, primarily inspired by the AI Legend Andrew Ng's portfolio. It now features a sleek design, curated projects, and live API-powered updates." At the bottom of this section are two buttons: "View selected work" and "Download CV". A small note at the bottom says "Time here: 532s · Welcome, guest.".

**CONTACT**

Let's collaborate.

Name

Email

Message

I agree to be contacted back.

Send

## KEY COMPONENTS

# HERO SECTION

**Smooth Calls to Action (CTAs) for Projects and Contact, plus a theme toggle with preference persistence**

PROJECTS

### Some of my Work

Filter: All Sort: Most Recent Hide projects

**Actuarial ML Insurance Recommender**

Developed a hybrid actuarial machine learning model that accurately predicts insurance coverage usage based on a policyholder's profile using NumPy and TensorFlow

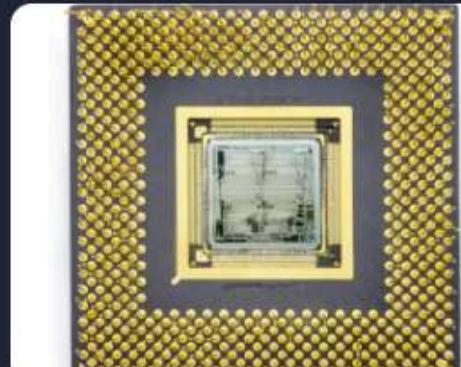
AI | 6/2/2025 | Python | Pandas | TensorFlow



**16-bit RISC CPU**

Solo three-day speedrun of building a 16-bit pipelined CPU implementing MIPS RISC architecture as well as numerous niche instructions.

HARDWARE | 3/15/2025 | Verilog | Timing STA | Simulation



**FPGA Smart Parking System**

Fully automated digital handicap-friendly smart parking system implemented in an Artix 7 FPGA, utilizing 7-segment display for displaying available parking places and green-red LED signaling to show if there're available spaces or not. No fancy libraries, pure Verilog. Shout-out to Salman al-Adwan for being my project partner.

HARDWARE | 4/22/2024 | FPGA | VHDL | UART



# PROJECTS DISPLAY

User friendly UI to explore different projects I played a role in with added functionalities such as sort by recency or alphabetically and categorical filtration

## LIVE FEED

## Latest GitHub activity.

check out my latest work in GitHub @ MickeyMoussa

This section is now auto-fetching my latest public repositories at live time

**assignment-4**

No description provided.

\* 0 Updated 12/11/2025 JavaScript

**assignment-3**

No description provided.

\* 0 Updated 12/11/2025 JavaScript

**8-1-api-authentication-hashing-MickeyMoussa**

web-engineering-kfupm-classroom-8-1-api-authentication-hashing-8-1-Thirdparty-API-Authentication-Pas created by GitHub Classroom

\* 0 Updated 11/24/2025 JavaScript

**frontend**

No description provided.

\* 0 Updated 11/22/2025 JavaScript

**7-1-mongodb-MickeyMoussa**

web-engineering-kfupm-classroom-7-1-mongodb-7-1-mongodb-Dromarjh-main created by GitHub Classroom

\* 0 Updated 11/19/2025 JavaScript

Showing latest updates for MickeyMoussa.

# GITHUB DISPLAY

**Utilized GitHub RESTLESS API to fetch info about last 5 repos I was involved in at GitHub in live time**

CONTACT

Let's collaborate.

Name

YAZEED ALZahrani

Email

s202349310@kfupm.edu.sa

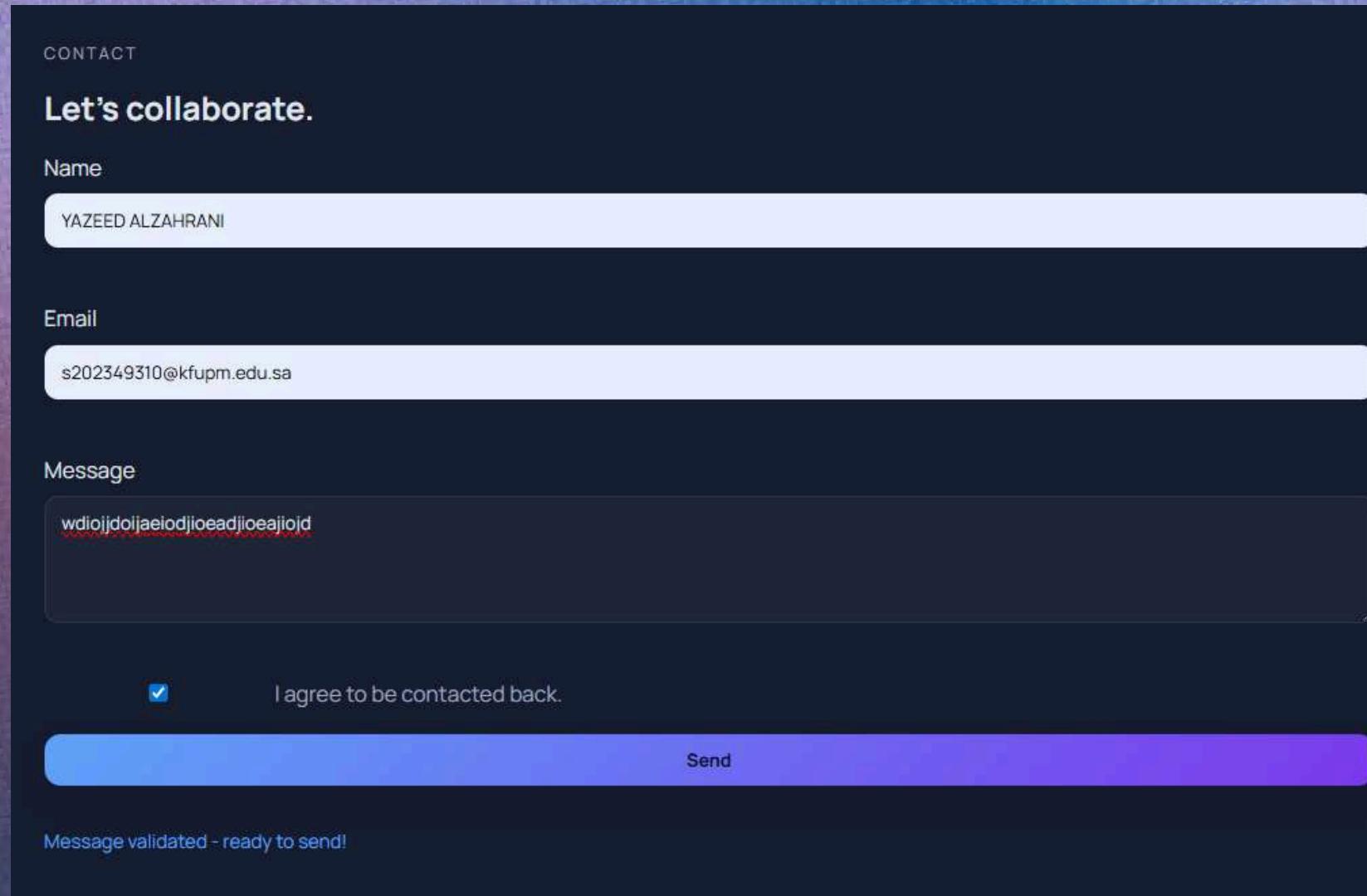
Message

wdiojjdoiaeiodjoeadjoeajoid

I agree to be contacted back.

Send

Message validated - ready to send!



# CONTACT FORM

To utilize this portfolio as a medium to connect with collaborators, I implemented a form for contact that utilizes RegEx for input validation and has popups for the user if he inputted something that isn't formatted correctly

# ARCHITECTURAL DESIGN

## STACK:

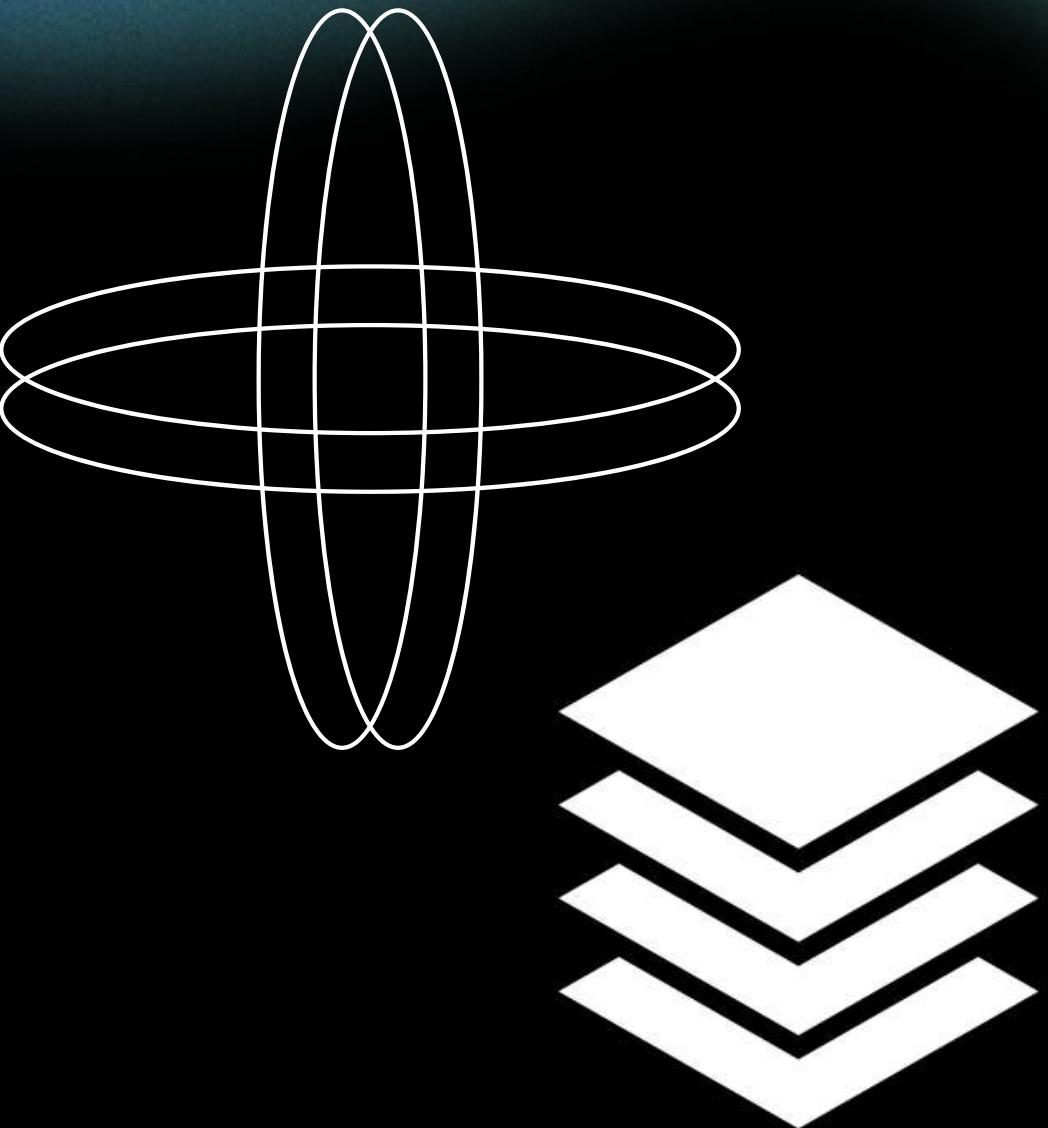
minimalist stack that utilizes vanilla js, html, and css without third-party frameworks

## DATA MANAGEMENT:

stored some data in the local storage for consistency - such as name (taken from form), time spent on the website, and theme

## UX:

smooth scroll with a responsive layout to make the portfolio interactive



# AI INTEGRATION

## STYLING

was given total responsibility for styling and applying Google Fonts to the project to ensure sleek and aesthetic interface

## ERROR HANDLING

assisted in brainstorming different error handling approaches for potential error patterns

## REGEX

helped debug RegEx issues to ensure robust input validation in form



**LLM USED: CHATGPT**



# INTERACTIVITY WITHOUT REACT

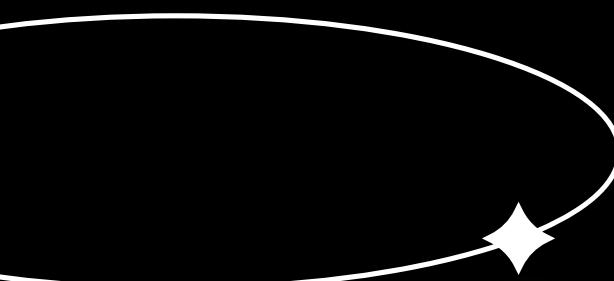
```
function initInteractions() {
  applyTheme();
  setGreeting(state.visitorName);
  renderProjects();
  fetchRepos();
  setInterval(updateVisitTimer, 1000);

  document.getElementById("theme-toggle")?.addEventListener("click", toggleTheme);
  document.getElementById("project-filter")?.addEventListener("change", (e) => {
    renderProjects(e.target.value, document.getElementById("project-sort").value);
  });
  document.getElementById("project-sort")?.addEventListener("change", (e) => {
    renderProjects(document.getElementById("project-filter").value, e.target.value);
  });
  document.getElementById("toggle-projects")?.addEventListener("click", toggleProjectsVisibility);
  document.getElementById("contact-form")?.addEventListener("submit", validateContactForm);
  document.getElementById("name")?.addEventListener("input", (e) => setGreeting(e.target.value));
  document.getElementById("primary-cta")?.addEventListener("click", () =>
    document.getElementById("projects")?.scrollIntoView({ behavior: "smooth" })
  );
  document.getElementById("cta-button")?.addEventListener("click", () =>
    document.getElementById("contact")?.scrollIntoView({ behavior: "smooth" })
  );
}

document.addEventListener("DOMContentLoaded", initInteractions);
```

I'm personally used to using react since it's convenient, but implementing this project without it presented a major challenge. I had to advance my event listener clicks and created a mini framework made up of state objects for different events and a "manual use effect" hook almost. Whenever an event was triggered, the corresponding function is called and the web page responds interactively

## DEEP DIVE: CHALLENGES AND SOLUTIONS



# **LESSONS LEARNED**

## **DOM MANIPULATION**

This experience made me more technically advanced in manipulating the DOM without the reliance on React

## **INTERACTIVE UI**

By creating an interactive UI that is context-aware with respect to errors in the form, I learnt to both create a UI that is both aesthetically pleasing and practical



# OUTCOMES

1

Developed a portfolio website that utilizes API calls and interactive features with robust validation to ensure a polished final product

2

Explored the GitHub API to fetch data in real-time

3

Deployed the project on to the internet using Vercel

**FUTURE WORK: FOCUSING MORE ON THE CONTENT OF THE WEBPAGE INSTEAD OF THE CODE TO ALIGN PORTFOLIO WITH CAREER GOALS AND WHAT EMPLOYERS LOOK FOR**



PORTFOLIO

Hi, I'm **Yazeed**. I'm a CS student @ KFUPM.

I made a major renovation to my portfolio site, primarily inspired by the AI Legend Andrew Ng's portfolio. It now features a sleek design, curated projects, and live API-powered updates.

POC  
GitHub LinkedIn

[View selected work](#) [Download CV](#)

Time here: 101s · Welcome, YAZEED ALZAHRANI.

ABOUT

Quantifying risk, optimizing decisions

Outside of university, I actively pursue an Associate of the Society of Actuaries (ASA) accreditation. This journey hon

assessments, data analysis, and statistical modeling.

Blending machine learning with actuarial science, I aim to quantify businesses' approach risk and decision-making. M

creating innovative solutions that drive efficiency and informed strategies.

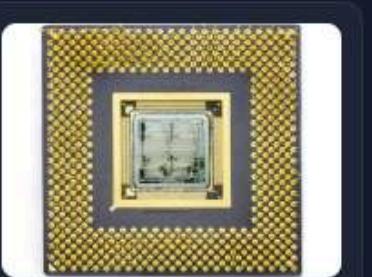
PROJECTS

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Actuarial ML Insurance Recommender



16-bit RISC CPU



FPGA Smart Parkin

Fully automated digita



# THANK YOU!

**YAZEED ALZAHRANI**

**S202349310@KFUPM.EDU.SA**

**CHECK OUT THE DEPLOYED**

**WEBSITE:**

<https://assignment-4-ob3u9fvj7-mickeymoussas-projects.vercel.app/>