

CMP 257 - Homework 1

Negar Arj - g00104887

Part A:

You can find the result of my web page [here](#).

Requirements:

1. You have to use HTML for structuring, CSS for styling, and JavaScript for interactivity.
2. Using Bootstrap is optional, but you can only use the Bootstrap grid system to assist with layout and positioning.
3. Ensure your page is professional and adaptive to different screen sizes.
4. You must use JavaScript to add meaningful and professional to your web page. Your implementation must demonstrate at least two different JavaScript features, including:
 - a. Manipulating the content of the web page using JavaScript
 - b. Use Event listeners to respond to user interactions.

-
- I used Bootstrap for the grid system and made sure that my page is adaptive to different screen sizes:

HTML

```
<div class="Container">
  <div class="row">
    <div class="col-lg-3 col-md-4 col-sm-12 left_side_bar">
      ....
    </div>
    <div class="col-lg-9 col-md-8 col-sm-12">
      <div class="row">
        <div class="col-lg-5 col-md-4 col-sm-12">
          .....
        </div>
        <div class="col-lg-5 col-md-4 col-sm-12">
          ....
        </div>
        <div class="col-lg-5 col-md-6 col-sm-12">
          .....
        </div>
      </div>
    </div>
  </div>
</div>
```

```


        <div class="col-lg-5 col-md-6 col-sm-12">
            .....
        </div>
    </div>
</div>

```

❖ Big Screens:

Portfolio
Home
Education
Projects
Experiences
Honors

Dark Mode



Negar Arj

Contact

+971502408304
g00104887@aus.edu
LinkedIn
Github

► Skills
► Languages
► Hobbies

Education

- American University of Sharjah
BCs in Computer Science
Minor in Applied and Computational Mathematics
- Amirkabir University of Technology
BCs in Computer Science
- Farzanegan Highschool
Diploma in Mathematics and Physics

Work Experience

- Logiscool UAE
Computer tutor for kids.
- Farzanegan Highschool
Computer Olympiad Tutor.

Projects

Course	Type	Link
CMP 257	Lab	Club Managing Portal
CMP 257	Homework	Portfolio
Persnoal	Project	Pac-man Game
Personal	Hackathon	Odoor Hackathon


Honors and Awards

- Bronze Medalin INOI
(Iran National Olympiad in Informatics)
- Eighth Place in the 2022 ICPC Asia Tehran Regional
- Gold Medal in PYPT
(Persian Young Physics Tournomants)

❖ Small Screens:

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- I used JavaScript to add dark and light modes to my page using an **event listener**, and to toggle the text for skills, languages, and hobbies to manipulate the content of the web page.

JavaScript

```
function toggleSection(listID, arrowID){
    const list = document.getElementById(listID);
    const arrow = document.getElementById(arrowID);
    if(list.style.display == "none"){
        list.style.display = "block";
        arrow.style.transform = "rotate(90deg)";
    }
    else{
        list.style.display = "none";
        arrow.style.transform = "rotate(0deg)";
    }
}
```

▼ Skills

- HTML
- CSS
- Javascript
- C++
- python
- C#

▼ Languages

- English
- Persian

▼ Hobbies

- Chess
- Violin
- Swimming

► Skills

► Languages


► Hobbies

JavaScript

```
document.addEventListener("DOMContentLoaded", function () {
  const btn = document.getElementById("top-right-btn");
  const body = document.body;
  btn.addEventListener("click", function () {
    body.classList.toggle("darkMode");
    if (body.classList.contains("darkMode")) {
      btn.innerHTML = "Light Mode";
      // btn.style.backgroundColor = "rgb(244, 244, 247)";
      // btn.style.color = "rgb(8, 2, 41)";
    } else {
      btn.innerHTML = "Dark Mode";
      // btn.style.backgroundColor = "rgb(3, 0, 48)";
      // btn.style.color = "rgb(239, 239, 242)";
    }
  });
});
```

Portfolio Home Education Projects Experiences Honors

Dark Mode



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Portfolio Home Education Projects Experiences Honors

Light Mode



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► Languages
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- Use semantic HTML elements (e.g., header, section, nav,)

```
HTML
<aside class="left_side_bar">
  
  <h3 id="name">Negar Arj</h3>
  <h4 class="left_title">Contact</h4>

  <section>
    <ul id="myList">
      <li><i class="fa fa-phone">&nbsp;&nbsp;  +971502408304</i></li>
      <li><i class="fa fa-envelope">&nbsp;&nbsp;  <a
href="mailto:g00104887@aus.edu">g00104887@aus.edu</a></i></li>
      <li><i class="fa fa-linkedin">&nbsp;&nbsp;  <a
href="https://www.linkedin.com/in/negar-arj/">Linkedin</a></i></li>
      <li><i class="fa fa-github">&nbsp;&nbsp;  <a
href="https://github.com/negararj">Github</a></i>
      </li>
    </ul>
  </section>

  <h4 class="left_title toggle" role="button" aria-expanded="false"
onclick="toggleSection('skills-list', 'arrow1')">
  <span id="arrow1" class="arrow">&#9654;</span>Skills
</h4>
<ul id="skills-list" class="collapsible">
  <li>HTML</li>
  <li>CSS</li>
  <li>Javascript</li>
  <li>C++</li>
  <li>python</li>
  <li>C#</li>
</ul>
<h4 class="left_title toggle" role="button" aria-expanded="false"
onclick="toggleSection('languages-list', 'arrow2')">
  <span id="arrow2" class="arrow">&#9654;</span>Languages
</h4>
<ul id="languages-list" class="collapsible">
  <li>English</li>
  <li>Persian</li>
</ul>
```

```
<h4 class="left_title toggle" role="button" aria-expanded="false"
  onclick="toggleSection('hobbies-list', 'arrow3')">
  <span id="arrow3" class="arrow">&#9654;</span>Hobbies
</h4>
<ul id="hobbies-list" class="collapsible">
  <li>Chess</li>
  <li>Violin</li>
  <li>Swimming</li>
</ul>
</aside>
```

```
HTML  
<section>  
    <ul id="myList">  
        <li><i class="fa fa-phone">&nbsp;&nbsp;  +971502408304</i></li>  
        <li><i class="fa fa-envelope">&nbsp;&nbsp;  <a  
href="mailto:g00104887@aus.edu">g00104887@aus.edu</a></i></li>  
        <li><i class="fa fa-linkedin">&nbsp;&nbsp;  <a  
href="https://www.linkedin.com/in/negar-arj/">Linkedin</a></i></li>  
        <li><i class="fa fa-github">&nbsp;&nbsp;  <a  
href="https://github.com/negararj">Github</a></i></li>  
    </ul>  
</section>
```

```
HTML

<nav class="top-nav">
  <div class="nav-container nav-links">
    <span class="nav-brand">Portfolio</span>
    <a href="#body">Home</a>
    <a href="#education-section">Education</a>
    <a href="#projects-section">Projects</a>
    <a href="#work-section">Experiences</a>
    <a href="#honors-section">Honors</a>
  </div>
</nav>
```

HTML

```
<section>
  <button id="top-right-btn" class="action-btn">Dark mode</button>
</section>
```

- You should include links to your GitHub repositories to showcase your projects

Projects

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HTML

```
<nav>
  <table>
    <tr>
      <th>Course</th>
      <th>Type</th>
      <th>Link</th>
    </tr>
    <tr>
      <td>CMP 257</td>
      <td>Lab</td>
      <td><a href="https://github.com/negararj/CMP-257-Lab">Club
Managing Portal</a></td>
    </tr>
    <tr>
      <td>CMP 257</td>
      <td>Homework</td>
      <td><a
href="https://github.com/negararj/CMP-257-HW-1">Portfolio</a></td>
    </tr>
    <tr>
      <td>Persnoal</td>
```


HTML

```

```

- Set a font and a background color for your portfolio.

CSS

```
body{
  border: 3px;
  /* padding: auto; */
  /* padding-top: 3rem; */
  font-family: 'Gill Sans', 'Gill Sans MT', Calibri, 'Trebuchet MS',
sans-serif;
  background-color: rgb(252, 253, 236);
  color: rgb(1, 1, 43);
}
```

- Use at least one pseudo class (e.g., hover)

CSS

```
a:hover{
  color: rgb(11, 1, 34);
  background-color: rgb(253, 253, 188);
}
```

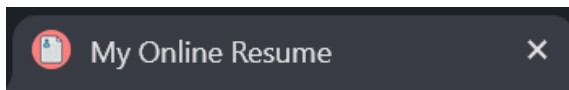
CSS

```
#top-right-btn:hover {
  background-color: #186ba3;
}
```

CSS

```
.toggle:hover{
  color: rgb(240, 236, 155);
}
```

- Add a browser icon (favicon) to your page.



HTML

```
<link rel="icon" href="imgs/icon.ico">
```

- Include at least one table to present structured information (e.g., skills, courses...). Tables must be used only for tabular data, not for page layout.

Projects		
Course	Type	Link
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HTML

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<table>
  <tr>
    <th>Course</th>
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    <td>CMP 257</td>
    <td>Lab</td>
    <td><a href="https://github.com/negararj/CMP-257-Lab">Club
Managing Portal</a></td>
  </tr>
  <tr>
    <td>CMP 257</td>
    <td>Homework</td>
    <td><a
href="https://github.com/negararj/CMP-257-HW-1">Portfolio</a></td>
```

```

        </tr>
        <tr>
            <td>Personal</td>
            <td>Project</td>
            <td><a href="https://github.com/negararj/PacMan">Pac-man
Game</a></td>
        </tr>
        <tr>
            <td>Personal</td>
            <td>Hackathon</td>
            <td><a href="https://github.com/negararj/Odoo_Hackathon">Odoo
Hackathon</a></td>
        </tr>
    </table>

```

- All styling must be done using an external CSS file (no inline or internal styles).

None

All the stylings are made in the file style.css.

Part B:

My prompt to ChatGpt:

Create a personal portfolio web page that showcases your skills, projects, hobbies and contact information. This portfolio is intended to act as an online resume to help you stand out when applying for jobs in your chosen field Requirements:

You have to use HTML for structuring, CSS for styling, and JavaScript for interactivity.

- Using Bootstrap is optional, but you can only use the bootstrap grid system to assist with layout and positioning.
- Ensure your page is professional and adaptive to different screen sizes.
- You must use JavaScript to add meaningful and professional to your web page. Your implementation must demonstrate at least two different JavaScript features, including:
 - o Manipulating the content of the web page using JavaScript
 - o Use Event listeners to respond to user interactions.

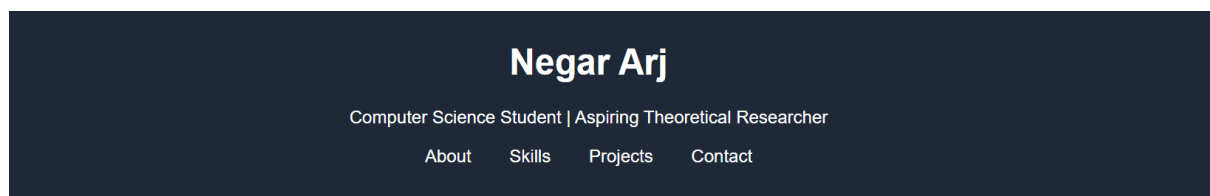
Content Requirements:

- Use semantic HTML elements (e.g., header, section, nav,)
 - You should include links to your GitHub repositories to showcase your projects
 - Include contact information: email address and any relevant social media profiles.
 - Include at least one image element with appropriate alt text.
 - Set a font and a background color for your portfolio.
 - Use at least one pseudo class (e.g., hover)
 - Add a browser icon (favicon) to your page.
 - Include at least one table to present structured information (e.g., skills, courses...).
- Tables must be used only for tabular data, not for page layout.
- All styling must be done using an external CSS file (no inline or internal styles).

Comparison of my code vs. AI code:

1. Structure Differences:

I used the sidebar while AI used the top navigation:



HTML

```
<header>
  <h1 id="main-title">Negar Arj</h1>
  <p>Computer Science Student | Aspiring Theoretical Researcher</p>

  <nav>
    <ul>
      <li><a href="#about">About</a></li>
      <li><a href="#skills">Skills</a></li>
      <li><a href="#projects">Projects</a></li>
      <li><a href="#contact">Contact</a></li>
    </ul>
  </nav>
</header>
```

2. It used a different design:

About Me



I am a Computer Science student with strong interests in algorithms, graph theory, and coding theory. My goal is to pursue a research-oriented career in theoretical computer science.

Show Research Interests

Skills

Category	Skills
Programming	Python, C++, JavaScript
Web Development	HTML, CSS, Responsive Design

JavaScript

```
body {  
  font-family: Arial, Helvetica, sans-serif;  
  margin: 0;  
  background-color: #f4f6f9;  
  color: #333;  
}
```

3. Different JavaScript features:

Projects

- Competitive Programming Practice [GitHub](#)
- Reverse Osmosis Desalination Analysis [GitHub](#)
- Web Portfolio Project [GitHub](#)

Add Sample Project

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JavaScript

```
// Feature 1: Manipulating Content
const changeTextBtn = document.getElementById("change-text-btn");
const aboutSection = document.querySelector("#about p");

changeTextBtn.addEventListener("click", function () {
    aboutSection.textContent =
        "My research interests include algorithm design, combinatorics,
        optimization, and coding theory. I am particularly interested in solving
        challenging theoretical problems.";
});

// Feature 2: Event Listener + Dynamic Content
const addProjectBtn = document.getElementById("add-project-btn");
const projectList = document.getElementById("project-list");

addProjectBtn.addEventListener("click", function () {
    const newProject = document.createElement("li");
    newProject.innerHTML =
        'Web Portfolio Project <a href="#">GitHub</a>';
    projectList.appendChild(newProject);
});

// Feature 3 (Extra Professional Touch)
const footerText = document.getElementById("footer-text");
const currentYear = new Date().getFullYear();
footerText.textContent = "© " + currentYear + " Negar. All Rights
Reserved.";
```

Total Comparison:

In my portfolio, I implemented an event handler for the dark mode feature and used collapsible togglers to keep the layout compact. This allows users to view all major information at a glance without excessive scrolling. The sidebar structure makes the page feel more like a structured resume, where content is organized and easily accessible.

In contrast, the AI-generated portfolio has a simpler and cleaner visual design with a modern layout. However, it requires more scrolling to view all sections because the content is arranged vertically in a single-column format. The AI version also demonstrates additional dynamic features, such as manipulating content to display research interests, dynamically adding projects through an event listener, and automatically updating the footer date using JavaScript.

Overall, my portfolio emphasizes structured organization and compact presentation, while the AI-generated version focuses more on minimal design and dynamic content interaction.