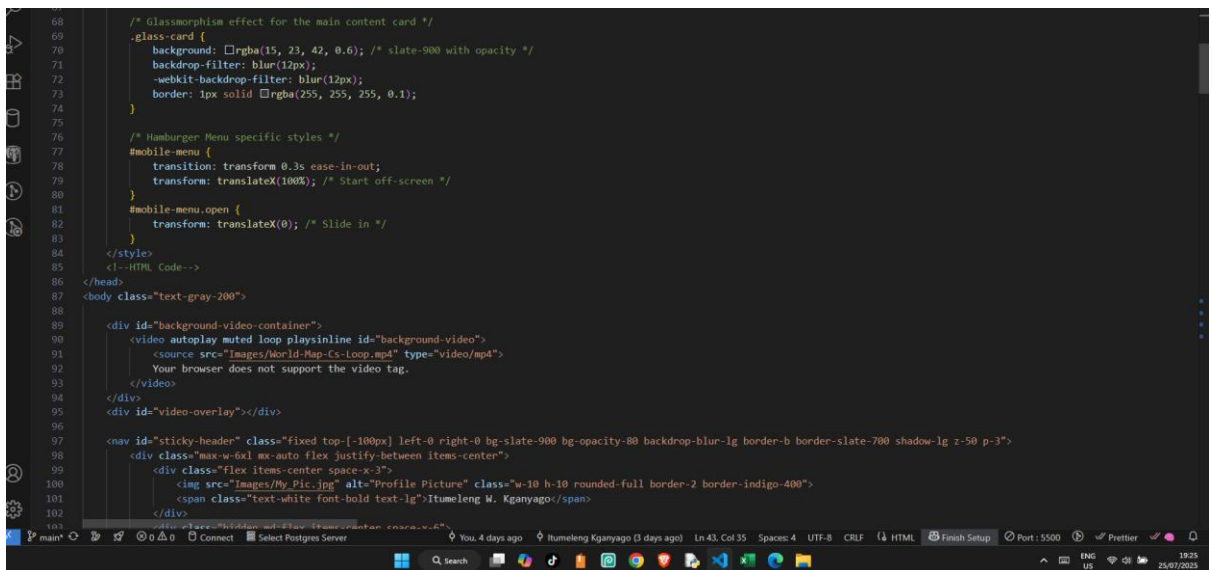# VIRTUAL CV

CMPG 323

JULY 25, 2025
ITUMELENG KGANYAGO
42539285

1. Introduction

This project implements a responsive footer section for a personal or portfolio website using HTML and Tailwind CSS. It enhances user engagement by offering multiple contact methods, including email and links to various social media platforms. Font Awesome icons are used for a modern and intuitive UI, with hover effects to provide interactive visual feedback. The footer is structured for accessibility, responsiveness, and clarity, ensuring seamless user experience across devices.

2. Explanation of the code

.glass-card: This CSS class is what gives your main content cards that cool "Glassmorphism Effect."

- background: rgba(15, 23, 42, 0.6);: This sets a semi-transparent dark background, giving it that frosted look.
- backdrop-filter: blur(12px);: This is the magic! It blurs whatever is *behind* the element, creating that signature frosted glass appearance. We've included -webkit-backdrop-filter for better compatibility across different browsers.
- border: 1px solid rgba(255, 255, 255, 0.1);: A subtle, almost transparent white border adds to the realistic glass feel.
  ⬜ #mobile-menu and #mobile-menu.open: These styles are all about making your "Mobile Menu" responsive and smooth.
- transition: transform 0.3s ease-in-out;: This ensures that when the menu moves, it does so with a nice, smooth animation over 0.3 seconds.
- transform: translateX(100%);: Initially, this pushes the mobile menu completely off-screen to the right, so it's hidden when not in use.
- #mobile-menu.open { transform: translateX(0); }: When a user clicks the hamburger icon (which likely adds the open class via JavaScript), this brings the menu smoothly into view.

```
131        </nav>
132    </div>
133
134    <header class="h-screen flex flex-col justify-center items-center text-center p-4 relative z-10">
135        <div class="opacity-0 fade-in">
136            <img id="hero-pic" src="Images/My_Pic.jpg" alt="Profile Picture" class="w-40 h-40 rounded-full object-cover shadow-2xl mx-auto border-4 border-indigo-500 ring-4 ring-indigo-500/50">
137        </div>
138        <h1 class="text-4xl md:text-6xl font-extrabold text-white mt-6 mb-2 opacity-0 fade-in fade-in-delay-1">
139            Itumeleng Wonder Kganyago
140        </h1>
141        <p class="text-lg md:text-xl text-indigo-300 mb-8 opacity-0 fade-in fade-in-delay-2">
142            Welcome to my Digital Portfolio
143        </p>
144
145        <div class="flex flex-col sm:flex-row items-center justify-center gap-4 opacity-0 fade-in fade-in-delay-3">
146            <a href="#main-content" class="bg-indigo-600 text-white font-semibold px-8 py-3 rounded-lg shadow-lg hover:bg-indigo-500 transform hover:scale-105 transition-all duration-300 w-full sm:
147                <i class="fas fa-arrow-down mr-2"></i> View My Work
148            </a>

150            <a href="Images/CV_Itumeleng_Kganyago.pdf" download class="bg-slate-800 text-white font-semibold px-8 py-3 rounded-lg shadow-lg hover:bg-slate-700 transform hover:scale-105 transition
151                <i class="fas fa-file-arrow-down text-indigo-400"></i> Download CV
152            </a>

154            <div class="flex items-center justify-center gap-4">
155                <a href="https://www.linkedin.com/in/itumeleng-wonder-kganyago-32336427a" target="_blank" class="text-2xl text-gray-300 hover:text-white transform hover:scale-110 transition-transf
156                    <i class="fab fa-linkedin"></i>
157                </a>
158                <a href="https://github.com/ItumelengKganyago" target="_blank" class="text-2xl text-gray-300 hover:text-white transform hover:scale-110 transition-transform duration-300">
159                    <i class="fab fa-github"></i>
160                </a>
161            </div>
162    </div>
163
164    <div class="absolute bottom-10 text-white opacity-0 fade-in fade-in-delay-4">
```

<body class="text-gray-200">: This is a simple but effective line. It sets the default text color for your entire page to a light gray, which provides excellent contrast against darker backgrounds.

▢ <div id="background-video-container"> and <video>: This is how you've implemented your dynamic "Background Video."

- autoplay muted loop playsinline: These attributes are key! They ensure the video starts playing automatically, without sound, loops continuously, and plays nicely within the page on mobile devices.
- <source src="Images/World-Map-Ls-Loop.mp4" type="video/mp4">: This tells the browser where to find your video file.

▢ <div id="video-overlay"></div>: This seemingly empty div works with your CSS to create an overlay over the video. This is super important for making sure your text is always readable, even over a busy background.

▢ <nav id="sticky-header" ...>: This is your "Sticky Header" in action!

- fixed top-0 left-0 right-0: These classes pin the navigation bar to the very top of the viewport, making it span the full width of the screen.
- bg-slate-900 bg-opacity-80 backdrop-blur-lg: Just like your glass cards, this gives the header a semi-transparent dark background with a cool blur effect.
- border-b border-slate-700 shadow-lg z-50 p-3: These add a subtle bottom border, a nice shadow, some padding, and ensure the header stays on top of all other content (z-50).
- Inside, the div uses max-w-6xl mx-auto flex justify-between items-center to center the content and neatly arrange your profile picture (<img src="Images/My_Pic.jpg" ...>) and your name (Itumeleng Kganyago), just as you'd expect from a professional portfolio.

```
34          position: absolute;
35          inset-block-start: 50%;
36          inset-inline-start: 50%;
37          transform: translate(-50%, -50%);
38          object-fit: cover;
39      }
40      #video-overlay {
41          position: fixed;
42          inset-block-start: 0;           You, 4 days ago • first comit
43          inset-inline-start: 0;
44          inline-size: 100%;
45          block-size: 100%;
46          background: radial-gradient(ellipse at center, rgba(12, 10, 24, 0.6) 0%, rgba(12, 10, 24, 0.9) 100%);
47          z-index: -1;
48      }
49
50      /* Styles for the sticky header that appears on scroll */
51      #sticky-header {
52          transition: top 0.5s ease-in-out;
53      }
54
55      /* Animation for fade-in effect */
56      @keyframes fadeIn {
57          from { opacity: 0; transform: translateY(30px); }
58          to { opacity: 1; transform: translateY(0); }
59      }
60      .fade-in {
61          animation: fadeIn 1s ease-out forwards;
62      }
63      .fade-in-delay-1 { animation-delay: 0.2s; }
64      .fade-in-delay-2 { animation-delay: 0.4s; }
65      .fade-in-delay-3 { animation-delay: 0.6s; }
66      .fade-in-delay-4 { animation-delay: 0.8s; }
67
```

video-overlay: This CSS makes sure your video overlay works perfectly.

- position: fixed; inset-block-start: 0; inset-inline-start: 0; inline-size: 100%; block-size: 100%;: These properties ensure the overlay covers the entire screen, no matter the device size.
- background: radial-gradient(…): This creates a subtle radial gradient, making the center slightly more transparent and the edges darker. This helps your text stand out, especially over the video.
- z-index: -1;: This places the overlay *behind* all your main content, but still on top of the background video.
  ⬚ #sticky-header (transition): This adds a smooth transition to the top property of your sticky header. If the header's position ever changes (for example, if it slides down when you scroll), this ensures a smooth animation.
  ⬚ @keyframes fadeIn: This is where you define your elegant "Fade-in Animation."
- from { opacity: 0; transform: translateY(30px); }: The animation starts with the element completely invisible and slightly moved down.
- to { opacity: 1; transform: translateY(0); }: It ends with the element fully visible and in its final position.
  ⬚ .fade-in and .fade-in-delay-X: These classes apply the fadeIn animation to various elements.
- .fade-in { animation: fadeIn 1s ease-out forwards; }: This applies the fadeIn animation over 1 second, with a smooth "ease-out" timing, and forwards makes sure the element stays in its final, visible state.
- .fade-in-delay-X: These are clever! They add staggered delays to the fadeIn animation (0.2s, 0.4s, etc.), making elements appear one after another for a really polished and engaging visual effect.

```
63    .fade-in-delay-1 { animation-delay: 0.2s; }
64    .fade-in-delay-2 { animation-delay: 0.4s; }
65    .fade-in-delay-3 { animation-delay: 0.6s; }
66    .fade-in-delay-4 { animation-delay: 0.8s; }
67
68    /* Glassmorphism effect for the main content card */
69    .glass-card {
70        background: rgba(15, 23, 42, 0.6); /* slate-900 with opacity */
71        backdrop-filter: blur(12px);
72        -webkit-backdrop-filter: blur(12px);
73        border: 1px solid rgba(255, 255, 255, 0.1);
74    }
75
76    /* Hamburger Menu specific styles */
77    #mobile-menu {
78        transition: transform 0.3s ease-in-out;
79        transform: translateX(100%); /* Start off-screen */
80    }
81    #mobile-menu.open {
82        transform: translateX(0); /* Slide in */
83    }
84    </style>
85    <!--HTML Code-->
86 </head>
87 <body class="text-gray-200">
88
89    <div id="background-video-container">
90        <video autoplay muted loop playsinline id="background-video">
91            <source src="Images/World-Map-Cs-Loop.mp4" type="video/mp4">
92            Your browser does not support the video tag.
93        </video>
94    </div>
95    <div id="video-overlay"></div>
96
97    <nav id="sticky-header" class="fixed top-[-100px] left-0 right-0 bg-slate-900 bg-opacity-80 backdrop-blur-lg border-b border-slate-700 shadow-lg z-50 p-3">
98        <div class="max-w-6xl mx-auto flex justify-between items-center">
```

<header class="h-screen flex flex-col justify-center items-center text-center p-4 relative z-10">: This is the container for your entire "Hero Section."

- h-screen: Makes sure this section takes up the full height of the user's screen.
- flex flex-col justify-center items-center text-center: These Tailwind classes are used to perfectly center all the content (your picture, name, message, and buttons) both vertically and horizontally.
- relative z-10: This ensures your hero content sits nicely *above* the background video and its overlay.
  🔹 Profile Picture (<img>):
- id="hero-pic" src="Images/My_Pic.jpg": This is where your profile picture is displayed.
- w-40 h-40 rounded-full object-cover shadow-2xl mx-auto border-4 border-indigo-500 ring-4 ring-indigo-500/50: Wow, a lot of styling here! These Tailwind classes handle everything from sizing (40x40 units) and making it perfectly round, to adding a strong shadow, a bold indigo border, and even a subtle ring around it. It's designed to really stand out!
- opacity-0 fade-in: And of course, it also gets that smooth fade-in animation.
  🔹 Name (<h1>) and Welcome Message (<p>):
- These elements display your name and the friendly welcome message. Notice the md:text-6xl and md:text-xl classes, which make the text responsive, looking great on both small and large screens. They also benefit from those staggered fade-in-delay animations.
  🔹 Call-to-Action Buttons (<a>):
- Your "View My Work" and "Download CV" buttons are styled with bold indigo or slate backgrounds, rounded corners, and shadows. They also have lovely hover effects (hover:bg-indigo-500, transform hover:scale-105) that make them slightly larger and change color when you mouse over them.
- w-full sm:w-auto: This is a great example of "Responsive Design." The buttons will take up the full width on smaller screens, but adjust to an automatic width on larger screens.
- You've used Font Awesome icons (<i class="fas fa-arrow-down"></i>, <i class="fas fa-file-arrow-down"></i>) to give them clear visual cues.
  🔹 Social Media Links (<a>):
- These links to your LinkedIn and GitHub profiles are designed to open in new tabs (target="_blank"), which is good for user experience.

- They also have elegant hover effects (hover:text-white transform hover:scale-110) that make them pop slightly and change color when interacted with.
- Again, Font Awesome icons (<i class="fab fa-linkedin"></i>, <i class="fab fa-github"></i>) are used to represent each platform.

Main Navigation (<div class="hidden md:flex ...">):

- hidden md:flex: This is a fantastic example of "Responsive Design" with Tailwind. It tells the browser to hide these navigation links by default, and only display them as a flexible row (flex) on medium-sized screens (md) and larger.
- The <a> links here are your main desktop navigation, complete with hover effects for a smooth user experience.
  ⯃ Hamburger Button (<div class="md:hidden">):
- md:hidden: This class does the opposite of the above – it hides the hamburger button on medium screens and larger, making it visible only on smaller devices.
- id="hamburger-button": This ID is crucial! It's what your JavaScript will use to detect clicks and open the mobile menu.
- You've used a Font Awesome icon (<i class="fas fa-bars text-2xl"></i>) for the classic hamburger menu look.
  ⯃ Mobile Menu (<div id="mobile-menu" ...>):
- fixed inset-y-0 right-0 w-64: This positions the mobile menu fixed to the right side of the screen, taking up the full height and a width of 64 units.
- bg-slate-900 bg-opacity-95 backdrop-blur-lg z-50 p-6 hidden shadow-xl: This styles the mobile menu itself, giving it a dark, semi-transparent background, a blur effect, generous padding, and a shadow. It's hidden by default, waiting for the hamburger button to activate it.
- id="close-mobile-menu": This button, with its Font Awesome "times" icon, is what users will click to close the mobile menu.
- The <nav> inside arranges the same navigation links as the desktop version, but in a vertical column (flex flex-col space-y-4 text-center), which is much better for touch-based mobile navigation.

```html
<div class="bg-slate-800/50 p-4 rounded-lg shadow-md border border-slate-700 hover:border-indigo-500 transition-all duration-300">
    <div class="flex justify-between items-baseline mb-1">
        <h3 class="text-xl font-semibold text-white">Matric</h3>
        <span class="text-sm text-gray-400">2020</span>
    </div>
    <p class="text-indigo-400 font-medium">Nkgopoleng Bakone High School. <a href="https://schoolsdigest.co.za/listings/nkgopoleng-bakone/" target="_blank"> Click For More Info
    <li>Sepedi H.L, English F.A.L, LO, Mathematics,</li>
    <li>Life Sciences, Geography, Agricultural Sciences.</li>
</div>
</section>

<section id="skills" class="mb-12">
    <h2 class="text-3xl font-bold text-white border-b-2 border-indigo-500 pb-3 mb-6">Skills</h2>
    <div class="grid grid-cols-1 sm:grid-cols-2 lg:grid-cols-3 gap-4">
        <div class="bg-slate-800/50 p-4 rounded-lg border border-slate-700">
            <h4 class="font-semibold text-white mb-1">Programming Languages:</h4>
            <p class="text-gray-300 text-sm">C++, Java, Python, C# (with ASP.NET)</p>
        </div>
        <div class="bg-slate-800/50 p-4 rounded-lg border border-slate-700">
            <h4 class="font-semibold text-white mb-1">Database & Server Management:</h4>
            <p class="text-gray-300 text-sm">MS SQL Server, MySQL, PostgreSQL, Oracle</p>
        </div>
        <div class="bg-slate-800/50 p-4 rounded-lg border border-slate-700">
            <h4 class="font-semibold text-white mb-1">Operating Systems:</h4>
            <p class="text-gray-300 text-sm">Windows, Linux</p>
        </div>
        <div class="bg-slate-800/50 p-4 rounded-lg border border-slate-700">
            <h4 class="font-semibold text-white mb-1">Networking:</h4>
            <p class="text-gray-300 text-sm">TCP/IP, VPN, LAN/WAN, Packet Tracer</p>
        </div>
        <div class="bg-slate-800/50 p-4 rounded-lg border border-slate-700">
            <h4 class="font-semibold text-white mb-1">Web/App Development:</h4>
            <p class="text-gray-300 text-sm">C#, .NET MAUI, Java, Python</p>
        </div>
        <div class="bg-slate-800/50 p-4 rounded-lg border border-slate-700">
```

Professional Summary (<section id="summary" ...>):

- id="summary": This ID makes it easy for your navigation links to jump directly to this section.
- The h2 and p tags display your "Professional Summary" content, styled with bold text, a distinctive bottom border, and comfortable line spacing.
  🎓 Education (<section id="education" ...>):
- id="education": Similarly, this ID allows direct linking from your navigation.
- Each of your educational entries (like your BSc IT and Matric) is neatly enclosed in a div. These divs boast that familiar "glassmorphism-like" background (bg-slate-800/50), along with padding, rounded corners, a shadow, and a subtle border. They also have a nice hover effect on the border!
- BSc IT Entry:
  - The h3 displays your degree title.
  - The span clearly shows your years of study (2022 | Current).
  - The p tag, with its embedded <a> link, mentions North-West University and provides a clickable link for more information.
  - The ul with list-disc presents all those "key modules and skills acquired" as a clear bulleted list.
- Matric Entry: This follows a very similar structure, detailing your matriculation from Nkgopoleng Bakone High School, also with a link for more details.

```
243                          <p class="text-gray-300 text-sm">Vulnerability assessment, firewalls, encryption</p>
244                      </div>
245                  </div>
246              </section>
247
248          <section id="certifications" class="mb-12">
249              <h2 class="text-3xl font-bold text-white border-b-2 border-indigo-500 pb-3 mb-6">Certifications From linkedin</h2>
250              <ul class="list-disc list-inside text-gray-300 space-y-2">
251                  <li class="hover:text-indigo-400 transition-colors duration-200">AWS Certified Cloud Practitioner (CLF-C02) Cert Prep</li>
252                  <li class="hover:text-indigo-400 transition-colors duration-200">Microsoft Azure Fundamentals (AZ 900) Cert Prep</li>
253                  <li class="hover:text-indigo-400 transition-colors duration-200">Career Essentials in System Administration by Microsoft</li>
254                  <li class="hover:text-indigo-400 transition-colors duration-200">Cybersecurity Foundations & Threat Landscape</li>
255                  <li class="hover:text-indigo-400 transition-colors duration-200">Google Cloud Digital Leader Cert Prep</li>
256              </ul>
257          </section>
258
259          <section id="projects">
260              <h2 class="text-3xl font-bold text-white border-b-2 border-indigo-500 pb-3 mb-6">Projects</h2>
261              <div class="mb-6 bg-slate-800/50 p-4 rounded-lg shadow-md border border-slate-700 hover:border-indigo-500 transition-all duration-300">
262                  <h3 class="text-xl font-semibold text-white mb-1">Virtual CV (This Portfolio)</h3>
263                  <p class="text-indigo-400 font-medium mb-3">Individual Project | <a href="https://github.com/ItumelengKganyago/IW_Kganyago_Virtual_Cv" target="_blank" class="hover:underli
264                  <ul class="list-disc list-inside text-gray-300 space-y-1 text-sm">
265                      <li>Developed a dynamic, responsive portfolio website from scratch.</li>
266                      <li>Utilizes HTML, Tailwind CSS for styling, and JavaScript for interactivity using Visual Studio Code.</li>
267                      <li>Designed to be visually engaging and user-friendly.</li>
268                  </ul>
269              </div>
270              <div class="bg-slate-800/50 p-4 rounded-lg shadow-md border border-slate-700 hover:border-indigo-500 transition-all duration-300">
271                  <h3 class="text-xl font-semibold text-white mb-1">Full-Stack Voting System App</h3>
272                  <p class="text-indigo-400 font-medium mb-3">Group Project | <a href="https://github.com/lethabomaepa11/Votex_Prototype" target="_blank" class="hover:underline">GitHub Reposi
273                  <ul class="list-disc list-inside text-gray-300 space-y-1 text-sm">
274                      <li>Collaborated in a team to build a Voting system for University elections.</li>
275                      <li>The app utilizes CSS, HTML and JAVA deveeloped using ANDROID STUDIO</li>
276                      <li>Designed to be visually engaging and user-friendly.</li>
```

<section id="skills" ...>: This entire section is dedicated to showcasing your impressive "Skills."

- h2: This is the main title for the section.
- grid grid-cols-1 sm:grid-cols-2 lg:grid-cols-3 gap-4: This is a clever use of Tailwind CSS's grid system to make your skills presentation responsive. It arranges your skill categories in a single column on small screens, two columns on medium screens, and three columns on large screens, with a nice gap in between.
- Each div within the grid represents a specific skill category (like "Programming Languages" or "Database & Server Management"). These divs also feature that subtle glassmorphism effect with borders and rounded corners.
- The h4 and p tags inside each div display the category title and a list of the specific technologies or areas you're proficient in.


```
272                  <p class="text-indigo-400 font-medium mb-3">Group Project | <a href="https://github.com/lethabomaepa11/Votex_Prototype" target="_blank" class="hover:underline">GitHub Reposi
273                  <ul class="list-disc list-inside text-gray-300 space-y-1 text-sm">
274                      <li>Collaborated in a team to build a Voting system for University elections.</li>
275                      <li>The app utilizes CSS, HTML and JAVA deveeloped using ANDROID STUDIO</li>
276                      <li>Designed to be visually engaging and user-friendly.</li>
277                  </ul>
278              </div>
279              <div class="bg-slate-800/50 p-4 rounded-lg shadow-md border border-slate-700 hover:border-indigo-500 transition-all duration-300">
280                  <h3 class="text-xl font-semibold text-white mb-1">E Commerce System</h3>
281                  <p class="text-indigo-400 font-medium mb-3">Group Project | <a href="https://github.com/tibz-dev/MM-TECH-E-COMMERCE-SYSTEM" target="_blank" class="hover:underline">GitHub R
282                  <ul class="list-disc list-inside text-gray-300 space-y-1 text-sm">
283                      <li>Collaborated in a team to build a system that will be used for selling between seller and buyer.</li>
284                      <li>The web application utillizes C# and was developed using WINDOWS FORM APP in VISUAL STUDIO 2022 </li>
285                      <li>Designed to be visually engaging and user-friendly.</li>
286                  </ul>
287              </div>
288              <div class="bg-slate-800/50 p-4 rounded-lg shadow-md border border-slate-700 hover:border-indigo-500 transition-all duration-300">
289                  <h3 class="text-xl font-semibold text-white mb-1">Network System</h3>
290                  <p class="text-indigo-400 font-medium mb-3">Group Project | <a href="https://github.com/tumiiiey2323/theNetworkDr" target="_blank" class="hover:underline">GitHub Repository
291                  <ul class="list-disc list-inside text-gray-300 space-y-1 text-sm">
292                      <li>Collaborated in a team to build a full network system that will be used by network architects to develop a network in a company.</li>
293                      <li>The network system was Fully developed using Packet Tracer</li>
294                      <li>Designed to be cost effective while being able to perform daily business operations</li>
295                  </ul>
296              </div>
297          </section>
298      </div>
299  </main>
300
301  <footer id="contact" class="text-center p-10 border-t border-slate-800">
302      <p class="text-gray-400 mb-2">Get in touch:</p>
303      <a href="mailto:Wonderkganyagocr7@gmail.com" class="text-indigo-400 hover:text-indigo-300 text-lg transition-colors">
304          Wonderkganyagocr7@gmail.com
305      </a>
```

<section id="certifications" ...>: This section is dedicated to your "Certifications."

- h2: This provides the section title, clearly stating "Certifications from LinkedIn."
- ul class="list-disc list-inside ...": This presents your certifications as a neat bulleted list.
- Each <li> contains an <a> tag for the certification name itself. The hover:text-indigo-400 class adds a nice visual feedback when a user hovers over the certification name.

```html
<footer id="contact" class="text-center p-10 border-t border-slate-800">
    <p class="text-gray-400 mb-2">Get in touch:</p>
    <a href="mailto:Wonderkganyagocr7@gmail.com" class="text-indigo-400 hover:text-indigo-300 text-lg transition-colors">
        Wonderkganyagocr7@gmail.com
    </a>
    <div class="flex items-center justify-center gap-5 mt-4">
        <a href="https://www.linkedin.com/in/itumeleng-wonder-kganyago-32336427a" target="_blank" class="text-2xl text-gray-400 hover:text-white transition-all duration-300">
            <i class="fab fa-linkedin"></i>
        </a>
        <a href="https://github.com/ItumelengKganyago" target="_blank" class="text-2xl text-gray-400 hover:text-white transition-all duration-300">
            <i class="fab fa-github"></i>
        </a>
        <a href="https://www.instagram.com/kganyago_itu?igsh=MXFsOXRyMTRwZzZlMQ==" target="_blank" class="text-2xl text-gray-400 hover:text-white transition-all duration-300">
            <i class="fab fa-instagram"></i>
        </a>
        <a href="https://www.facebook.com/profile.php?id=61571324030547" target="_blank" class="text-2xl text-gray-400 hover:text-white transition-all duration-300">
            <i class="fab fa-facebook"></i>
        </a>
        <a href="https://wa.me/qr/2CEQ2VLILV7NF1" target="_blank" class="text-2xl text-gray-400 hover:text-white transition-all duration-300">
            <i class="fab fa-whatsapp"></i>
        </a>
    </div>
    <p class="text-gray-600 text-sm mt-8">&copy; 2025 Itumeleng Wonder Kganyago. All Rights Reserved.</p>
</footer>
<!--Betweeen <script> and <script> is the javascript code-->
<script>
    document.addEventListener('DOMContentLoaded', () => {
        const stickyHeader = document.getElementById('sticky-header');
        const heroSection = document.querySelector('header');
        const hamburgerButton = document.getElementById('hamburger-button');
        const mobileMenu = document.getElementById('mobile-menu');
        const closeMobileMenuButton = document.getElementById('close-mobile-menu');
        const mobileMenuLinks = document.querySelectorAll('.mobile-menu-link');

        // Sticky Header Logic
        // The header will appear when the top of the hero section is 50% out of view
```

<section id="projects" ...>: This is the dedicated section for your "Projects."

- h2: This is the main title for the section.
- Each project entry is enclosed in a div that's styled very similarly to your education entries – it has that glassmorphism effect, borders, shadows, and those engaging hover effects.
- Project Details: For each project, you've included:
  - An h3 for the project title (e.g., "Virtual CV (This Portfolio)").
  - A p tag that indicates if it was an "Individual Project" or "Group Project," and crucially, provides a direct link to its "GitHub Repository."
  - A ul with list-disc that gives a concise, bulleted overview of the project's key features or your contributions, including the technologies used and its purpose.


```javascript
<!--Betweeen <script> and <script> is the javascript code-->
<script>
    document.addEventListener('DOMContentLoaded', () => {
        const stickyHeader = document.getElementById('sticky-header');
        const heroSection = document.querySelector('header');
        const hamburgerButton = document.getElementById('hamburger-button');
        const mobileMenu = document.getElementById('mobile-menu');
        const closeMobileMenuButton = document.getElementById('close-mobile-menu');
        const mobileMenuLinks = document.querySelectorAll('.mobile-menu-link');

        // Sticky Header Logic
        // The header will appear when the top of the hero section is 50% out of view
        const observerOptions = {
            root: null, // relative to the viewport
            rootMargin: '0px',
            threshold: 0.5
        };

        const observer = new IntersectionObserver((entries) => {
            entries.forEach(entry => {
                if (entry.isIntersecting) {
                    stickyHeader.style.top = '-100px'; // Hide sticky header (move it off-screen)
                } else {
                    stickyHeader.style.top = '0'; // Show sticky header (move it to the top)
                }
            });
        }, observerOptions);

        if (heroSection) {
            observer.observe(heroSection);
        }

        // Smooth scrolling for desktop navigation links in the sticky header
        document.querySelectorAll('#sticky-header a[href^="#"]').forEach(anchor => {
            anchor.addEventListener('click', function (e) {
                e.preventDefault(); // Prevent default jump
```

```
354             observer.observe(heroSection);
355         }
356
357         // Smooth scrolling for desktop navigation links in the sticky header
358         document.querySelectorAll('#sticky-header a[href^="#"]').forEach(anchor => {
359             anchor.addEventListener('click', function (e) {
360                 e.preventDefault(); // Prevent default jump
361                 const targetId = this.getAttribute('href'); // Get the href value (e.g., "#about-me")
362                 document.querySelector(targetId).scrollIntoView({
363                     behavior: 'smooth' // Smooth scroll to the target section
364                 });
365             });
366         });
367
368         // Hamburger Menu Logic
369         hamburgerButton.addEventListener('click', () => {
370             mobileMenu.classList.add('open'); // Add 'open' class to slide in the mobile menu
371         });
372
373         closeMobileMenuButton.addEventListener('click', () => {
374             mobileMenu.classList.remove('open'); // Remove 'open' class to slide out the mobile menu
375         });
376
377         // Close mobile menu and smooth scroll when a link inside it is clicked
378         mobileMenuLinks.forEach(link => {
379             link.addEventListener('click', function(e) {
380                 e.preventDefault(); // Prevent default jump
381                 const targetId = this.getAttribute('href'); // Get the href value
382                 mobileMenu.classList.remove('open'); // Close the mobile menu
383                 document.querySelector(targetId).scrollIntoView({
384                     behavior: 'smooth' // Smooth scroll to the target section
385                 });
386             });
387         });
```

<footer id="contact" ...>: This defines your "Footer" section, which also doubles as your "Contact" area.

- text-center p-10 border-t border-slate-800: This centers all the text, adds generous padding, and includes a subtle top border.
- The p tag and <a> link provide a clear "Get in touch" message and your email address, which changes color on hover.
- Social Media Links: The div here contains all your social media links.
  - flex items-center justify-center gap-4 mt-4: This neatly centers your social media icons horizontally with some spacing between them.
  - Each <a> tag includes a Font Awesome icon (<i>) and features those engaging hover effects (hover:text-white transform hover:scale-110) that make them slightly larger and change color when a user interacts with them.
- The final p tag proudly displays your copyright notice.


```
372
373         closeMobileMenuButton.addEventListener('click', () => {
374             mobileMenu.classList.remove('open'); // Remove 'open' class to slide out the mobile menu
375         });
376
377         // Close mobile menu and smooth scroll when a link inside it is clicked
378         mobileMenuLinks.forEach(link => {
379             link.addEventListener('click', function(e) {
380                 e.preventDefault(); // Prevent default jump
381                 const targetId = this.getAttribute('href'); // Get the href value
382                 mobileMenu.classList.remove('open'); // Close the mobile menu
383                 document.querySelector(targetId).scrollIntoView({
384                     behavior: 'smooth' // Smooth scroll to the target section
385                 });
386             });
387         });
388
389         // Smooth scroll for the "View My Work" button in the hero section
390         document.querySelector('a[href="#main-content"]').addEventListener('click', function(e) {
391             e.preventDefault(); // Prevent default jump
392             document.querySelector(this.getAttribute('href')).scrollIntoView({
393                 behavior: 'smooth' // Smooth scroll to the main content
394             });
395         });
396     });
397     </script>
398 </body>
399 </html>
```

document.addEventListener("DOMContentLoaded", () => { ... });: This is a standard and very important line! It simply ensures that all your JavaScript code only runs *after* the entire HTML page has fully loaded. This prevents any errors from trying to manipulate elements that aren't quite ready yet.

⬚ Element References: The first few lines (const stickyHeader = ..., const heroSection = ..., etc.) are just getting references to the specific HTML elements that your JavaScript will need to interact with. Think of it as giving your JavaScript a direct handle to each part of your page.

⬚ Sticky Header Logic (Intersection Observer): This is a really neat piece of code that controls when your sticky header appears.

- observerOptions: This defines the rules for when the header should show up.
    - root: null: It's observing the heroSection relative to the entire viewport (the user's screen).
    - threshold: 0.5: This is the trigger point. The code will react when 50% of your heroSection (the big introductory part of your page) is either visible or not visible.
- const observer = new IntersectionObserver(...): This creates the actual observer.
- if (entry.isIntersecting) { stickyHeader.style.top = "-100px"; } else { stickyHeader.style.top = "0"; }: This is the core of the sticky header's behavior. If the heroSection is at least 50% visible (isIntersecting), the stickyHeader is moved off-screen (-100px from the top), effectively hiding it. If the heroSection is *less* than 50% visible (meaning you've scrolled past it), the stickyHeader is moved to the top (0), making it visible. This creates that smooth effect where the header only appears when you scroll down.
- observer.observe(heroSection);: This tells the observer to start watching your heroSection.

⬚ Smooth Scrolling for Desktop Navigation Links: This makes navigating your site a joy!

- document.querySelectorAll("#sticky-header a[href^='#']"): This selects all the navigation links within your sticky header that point to sections on the same page (their href starts with #).
- forEach(anchor => { anchor.addEventListener("click", function (e) { ... }); });: It then adds a "click" listener to each of these links.
- e.preventDefault();: This is important! It stops the browser from doing its default "jump" behavior when you click an anchor link.
- const targetId = this.getAttribute("href");: This grabs the ID of the section you want to scroll to (e.g., "#about-me").
- document.querySelector(targetId).scrollIntoView({ behavior: "smooth" });: And finally, this line makes the browser smoothly scroll to that target section, rather than just jumping there instantly.

⬚ Hamburger Menu Logic: This handles the opening and closing of your mobile menu.

- hamburgerButton.addEventListener("click", () => { mobileMenu.classList.add("open"); });: When the hamburger button is clicked, the open class is added to your mobileMenu element. Remember from the CSS section, this open class is what makes the menu slide into view.
- closeMobileMenuButton.addEventListener("click", () => { mobileMenu.classList.remove("open"); });: Conversely, when the close button inside the mobile menu is clicked, the open class is removed, causing the menu to slide back off-screen.

⬚ Close Mobile Menu and Smooth Scroll on Link Click: This combines two actions for a better mobile experience.

- mobileMenuLinks.forEach(link => { link.addEventListener("click", function(e) { ... }); });: It adds a click listener to every link *within* your mobile menu.
- e.preventDefault();: Again, preventing the default jump.
- const targetId = this.getAttribute("href");: Gets the ID of the section to scroll to.

- mobileMenu.classList.remove("open");: This is key! It immediately closes the mobile menu.
- document.querySelector(targetId).scrollIntoView({ behavior: "smooth" });: And *then*, it smoothly scrolls to the desired section.
  ⬜ Smooth Scroll for "View My Work" Button:
- document.querySelector('a[href="#main-content"]').addEventListener('click', function(e) { … });: This specifically targets your "View My Work" button in the hero section.
- The logic here is the same as the other smooth scrolling implementations, ensuring a pleasant, animated scroll to your main content area when this button is clicked.

3. Challenges

The primary challenge I encountered during this project was that it was my first time independently creating a website using HTML, CSS, and JavaScript. Initially, I found it overwhelming, but through the support of resources like YouTube tutorials, Google searches, and guidance from ChatGPT, I was able to overcome these difficulties and successfully complete the project.

4. Conclusion

The integrated footer successfully provides essential contact options while maintaining a clean, responsive design. Using Tailwind CSS and Font Awesome allows for rapid development and consistent styling. This component strengthens the site's professionalism and user interactivity, aligning with modern web development standards and user expectations.