

# # Danilo Novais Portfolio Homepage

## ## Technical Documentation & Design Specifications

**\*\*Version:\*\*** 2.0  
**\*\*Last Updated:\*\*** December 31, 2025  
**\*\*Status:\*\***  Ready for Implementation

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### ## 1. PROJECT OVERVIEW

#### ### 1.1 Vision & Goals

Create a premium institutional portfolio that demonstrates design excellence not just through showcased work, but through the site's own execution. The homepage must:

- **Establish immediate credibility** through atmospheric visual design and editorial sophistication
- **Guide visitors intuitively** from brand introduction → work showcase → contact
- **Feel distinctive and memorable** without sacrificing usability or accessibility
- **Perform flawlessly** across all devices and connection speeds
- **Reflect the designer's philosophy**: "You don't see design. But it sees you."

#### **Success looks like:**

- Visitors spending 2+ minutes exploring the portfolio
- High engagement with featured projects (50%+ click-through)
- Contact form conversions from qualified leads
- Zero accessibility violations (WCAG AA minimum)
- Lighthouse scores: Performance 90+, Accessibility 100, Best Practices 100

#### ### 1.2 Target Audience

##### **Primary:**

- **Brand managers and marketing directors** at mid-to-large companies seeking design partners
- **Creative agencies** looking for freelance brand designers or collaborators
- **Startups and scale-ups** needing brand identity and campaign work

##### **Secondary:**

- Design recruiters and HR professionals
- Fellow designers and creative community (peer recognition)
- Potential collaborators for interdisciplinary projects

##### **User Needs:**

- Quickly understand what Danilo does and his areas of expertise
- See evidence of high-quality work across branding, campaigns, and digital

- Assess cultural fit and working style
- Easily initiate contact

### ### 1.3 Key Success Metrics

- **Engagement:** Average session duration, scroll depth, interaction rate
- **Conversion:** Contact form submissions, portfolio page visits
- **Technical:** Page load time <3s, Core Web Vitals passing, 0 console errors
- **Accessibility:** WCAG AA compliance, keyboard navigation coverage

### ### 1.4 Technical Constraints

- **No localStorage/sessionStorage** in artifacts (Claude.ai environment restriction)
  - **Self-hosted assets** where possible to avoid external dependencies
  - **Graceful degradation** for WebGL/3D features (fallback to static alternatives)
  - **Mobile-first** responsive design (majority of traffic expected from mobile)
  - **Performance budget:** <2MB initial page weight, <5s time to interactive
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## ## 2. DESIGN SYSTEM

### ### 2.1 Color Palette

Token	Value	Usage
`primary`	`#0048ff`	Primary brand color, interactive elements, CTAs
`accent`	`#4fe6ff`	Secondary highlights, Ghost atmosphere glow
`background`	`#0d003b`	Main dark background
`backgroundLight`	`#f0f0f0`	Light sections (forms, alternating backgrounds)
`text`	`#fcffff`	Primary text on dark backgrounds
`textInverse`	`#0e0e0e`	Text on light backgrounds
`textSecondary`	`#a1a3a3`	Secondary information, metadata
`neutral`	`#b0d3a`	Gradient transitions, subtle backgrounds
`neutralLight`	`#F5F5F5`	Secondary section backgrounds

### ### 2.2 Typography

**Primary Font:** TT Norms Pro (self-hosted, fallback: `ui-sans-serif, system-ui`)

Element	Size	Weight	Usage
H1	`4rem–6rem` (64–96px)	Bold	Hero headlines
H2	`2rem–3rem` (32–48px)	Bold	Section titles
H3	`1.25rem–1.5rem` (20–24px)	Medium	Card titles, subsections
Body	`1rem–1.125rem` (16–18px)	Regular	Main content, descriptions
Small	`0.875rem` (14px)	Regular/Medium	Meta info, labels
Micro	`0.75rem` (12px)	Mono	Tags, system messages

### ### 2.3 Spacing & Grid

**Container:** `max-width: 1680px`, horizontal padding `clamp(24px, 5vw, 96px)`

#### **Vertical Rhythm:**

- Section spacing: `py-16 md:py-24` (64–96px)
- Component spacing: `gap-8 md:gap-12` (32–48px)
- Element spacing: `gap-4 md:gap-6` (16–24px)

#### **Grid System (Tailwind):**

- Mobile: Single column, full-width components
- Tablet: `md:grid-cols-2` for cards, maintain single column for hero/showcase
- Desktop: Custom column distributions per section (see Component Specifications)

### ### 2.4 Animation Principles

**Philosophy:** Animations should feel organic and purposeful, never arbitrary or attention-seeking.

#### **Core Library:** Framer Motion

##### **Guidelines:**

- **Animate only** `transform` and `opacity` for performance
- **Easing:** Prefer `cubic-bezier(0.22, 1, 0.36, 1)` (easeOutExpo) for elegance
- **Duration:** 300–700ms for most transitions (longer for complex reveals)
- **Stagger:** 60–120ms delays between sequential elements
- **Respect `prefers-reduced-motion`:** Disable non-essential animations, keep critical layout changes instant

##### **Common Patterns:**

```
```javascript
// Scroll reveal
initial={{ opacity: 0, y: 24 }}
whileInView={{ opacity: 1, y: 0 }}
transition={{ duration: 0.6, ease: [0.22, 1, 0.36, 1] }}

// Hover (buttons, cards)
whileHover={{ scale: 1.02, y: -2 }}
transition={{ duration: 0.3 }}

// Staggered children
variants={{
  hidden: { opacity: 0 },
  visible: {
    opacity: 1,
    transition: { staggerChildren: 0.08 }
  }
}}
```

```

### ### 2.5 Global Assets

#### \*\*Logos:\*\*

- Favicon:  
`https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/logo\_site/Favicon.svg`
- Favicon Light:  
`https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/logo\_site/FaviconLight.svg`
- Logo Light (full):  
`https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/logo\_site/LogoLight.svg`
- Logo Dark (full):  
`https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/logo\_site/LogoDark.svg`

#### \*\*Videos:\*\*

- Manifesto Video:  
`https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/project-videos/VIDEO-APRESENTACAO-PORTFOLIO.mp4`

#### \*\*Client Logos:\*\*

- 12 monochromatic SVG logos: `client1.svg` through `client12.svg`
- Base URL:  
`https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/client-logos/`

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## ## 3. SITE ARCHITECTURE

### ### 3.1 Information Architecture

```

#### Homepage

- Header (persistent navigation)
- Hero + Manifesto Video
- Portfolio Showcase (3 categories)
- Featured Projects (4 highlighted works)
- Clients/Brands (logo grid)
- Contact (form + info)
- Footer

#### Other Pages (linked from homepage)

- /sobre (About page)
- /portfolio (Full portfolio with filters)
- /portfolio/[slug] (Individual project pages)

```

### ### 3.2 Navigation Structure

#### \*\*Primary Navigation (Header):\*\*

- Home → `/` or `#hero`

- Sobre (About) → `/sobre`
- Portfólio → `/portfolio`
- Contato (Contact) → `#contact` (always anchors to contact section)

#### **\*\*Secondary Navigation (Footer):\*\***

- Same as primary navigation
- Additional: Social media links

### ### 3.3 Section Flow

The homepage follows a narrative arc:

1. **Header:** Establishes brand identity and provides navigation
2. **Hero:** Creates emotional impact and communicates positioning
3. **Manifesto Video:** Deepens understanding through motion storytelling (desktop: integrated; mobile: separate section)
4. **Portfolio Showcase:** Introduces work categories with editorial rhythm
5. **Featured Projects:** Demonstrates quality through curated examples
6. **Clients/Brands:** Builds credibility through association
7. **Contact:** Provides clear conversion path
8. **Footer:** Reinforces brand and provides supplementary navigation

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## # **4. COMPONENT SPECIFICATIONS**

### # **4.1 Header**

**Purpose:** Provide persistent, accessible navigation while complementing (not competing with) the Hero section.

#### Desktop ( $\geq 1024\text{px}$ ): Fluid Glass Header

#### **Layout:**

- Position: `position: sticky`, `top: 0`, `z-index: 40`
- Width: Partial container (not full-width), horizontally centered
- Height: `56–72px`
- Style: Pill-shaped with rounded corners, translucent glass effect (blur + subtle gradient)

#### **Content:**

- Left: Logo (Favicon Light)
- Right: Horizontal navigation list (Home, Sobre, Portfólio, Contato)

#### **Interaction – Fluid Glass Effect:**

The header responds to cursor movement along the X-axis:

- **Follow behavior:** Subtle horizontal translation (`maxTranslateX: 40–60px`)
- **Spring physics:** `followDamping: 0.08–0.12s`, gentle overshoot
- **Scale:** Slight horizontal stretch (`maxScaleX: 1.05`) and vertical compression (`maxScaleY: 1.02`)
- **Visual:** Refraction distortion, chromatic aberration on edges, backdrop blur

## **\*\*Fallback (no WebGL / reduced motion):\*\***

- Same layout and typography
- Static positioning with standard backdrop-filter blur or solid/gradient background
- No cursor-following behavior

#### Mobile & Tablet (≤1023px): Staggered Menu Header

### **\*\*Layout:\*\***

- Position: Fixed bar at top, full-width
- Height: `48–64px`
- Content: Logo (left), Hamburger icon (right)

### **\*\*Menu Overlay (when open):\*\***

- Fullscreen or near-fullscreen overlay
- Gradient background (primary to neutral)
- Navigation items in vertical column, large text, generous spacing
- Social media icons at bottom

### **\*\*Animation:\*\***

- Open: Overlay fades in (`opacity: 0 → 1`, 200–250ms), panel slides in from right (`translateX: 100% → 0`, 260–320ms), hamburger morphs to X
- Items appear with stagger: `opacity: 0 → 1`, `translateY: 16px → 0`, `staggerDelay: 100ms`
- Close: Reverse sequence, items disappear in reverse order

### **\*\*Interactions:\*\***

- Tap X icon: Close menu
- Tap navigation item: Close menu + navigate
- Tap overlay background: Close menu

### **\*\*Accessibility:\*\***

- `aria-label` on hamburger/X icon
- `aria-expanded` state
- Focus trap within open menu
- ESC key closes menu

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## # **4.2 Hero + Manifesto**

**Purpose:** Create immediate visual and emotional impact, communicate brand positioning, introduce the manifesto video as a sensory layer.

#### Structure (Desktop)

### **\*\*Z-Index Stack:\*\***

1. **Z-50:** Preloader (Ghost Loader SVG animation)
2. **Z-30:** Manifesto Video Thumbnail (floating, bottom-right)
3. **Z-20:** Ghost Atmosphere (WebGL Canvas)
4. **Z-10:** Editorial Text Block (static, centered)
5. **Z-0:** Gradient Background (`#0d003b` to `#0b0d3a`)

#### Preloader

## **\*\*Visual:\*\***

- SVG ghost icon (white, floating animation)
- Text: "Summoning spirits" (uppercase, mono font, tracking-wide)
- Progress bar: Gradient fill (`#0057FF` to `#5227FF`), 2s duration
- Background: Dark gradient (#0a0a0a` to `#1a1a1a`)

## **\*\*Behavior:\*\***

- Displays immediately on page load
- Fades out after 1.5–2s (`opacity: 1 → 0`, 1s duration)

## #### Ghost Atmosphere (WebGL Canvas)

### **\*\*Visual Description:\*\***

Ethereal, organic 3D atmosphere inspired by the "Ghost Blue" aesthetic.

#### Main elements:

- **Ghost Mesh:** Emissive spherical form (#0057FF`), harmonic pulsing, floating vertically
- **Reactive Eyes:** Glow intensity increases with mouse movement
- **Particles:** Organic floating particles orbiting the ghost
- **Fireflies:** Small light points adding depth

### **\*\*Post-Processing:\*\***

- **Bloom Pass:** HDR glow effect (intensity: 2.8)
- **Analog Decay Pass:** Film grain, scanlines, subtle jitter, vignette

### **\*\*Interaction:\*\***

- Ghost follows cursor slowly (`lerp: 0.05`)
- Sinusoidal organic movement (`sin(time \* 0.8)` vertical, `sin(time \* 0.3)` horizontal)

### **\*\*Performance:\*\***

- DPR: Max 2
- Antialias: False
- Disabled entirely on `prefers-reduced-motion`

### **\*\*Fallback:\*\***

- Static radial gradient background (#0b0d3a` to `#06071f`)
- No 3D elements

**\*\*Reference:\*\*** Inspired by <https://codepen.io/danilonovaisv/pen/azZbdQo>

## #### Editorial Text Block

### **\*\*Content:\*\***

- Tag: `[BRAND AWARENESS]` (12px, uppercase, mono)
- H1: "Você não vê o design." (5–8rem, Black, tracking-tight)
- H2: "Mas ele vê você." (5–8rem, Black, tracking-tight)
- CTA: "step inside →" (link to `/sobre`, hover effect: color change + arrow translation)
- Same CTA button at bottom

### **\*\*Behavior:\*\***

- 100% static (no scroll-triggered animations or fades)
- Centered vertically and horizontally

- Color: `#d9dade` on `#06071f` background

Here's your updated and clarified description with all the new desktop behaviors (full-page for 2s, scroll hold, fixed position on the side, and sound logic) integrated and cleaned up 

#### #### Manifesto Video Thumbnail (Desktop)

##### **Initial State:**

- Position: `bottom-right`, with gutter spacing
- Size: ~30vw width, 16:9 aspect ratio
- Style: Rounded corners (`border-radius: 12-16px`), subtle shadow
- Video: Autoplay, **muted**, loop, `playsInline`
- URL: (Manifesto video from assets)

##### **Scroll Behavior & Positioning (Desktop):**

- While the Hero section is in view and the video is transitioning from thumbnail → fullscreen:
  - The video stays **fixed** to the viewport (anchored to `bottom-right`) and does **not** scroll with the page content.
  - As the user scrolls, the video:
    - Scales up toward fullscreen
    - Moves from `bottom-right` toward the center
    - Gradually loses its rounded corners
  - Only after the animation completes and the video reaches the **fullscreen state** does it stop being a small "floating" thumbnail.

##### **Scroll Animation (Desktop):**

The video grows and centers as the user scrolls:

```
javascript
// Pseudo-code (Framer Motion / GSAP style idea)
scaleVideo: [0.3, 1]                      // from 30% to 100% viewport
posXVideo: ["100%", "50%"]                 // from bottom-right → center (example)
posYVideo: ["100%", "50%"]                 // from bottom-right → center (example)
borderRadius: ["16px", "0px"]                // from rounded to square
opacityText: [1, 0]                         // editorial text fades out
position: ["fixed", "fixed"]                // stays pinned to viewport during scroll
```

##### Trigger:

- Driven by scroll progress through the Hero section:
- ```
scrollYProgress: [0, 1]
```
- 

#### Fullscreen Hold & Sound Logic (Desktop)

When the video reaches its fullscreen state (covers the entire viewport, `scaleVideo = 1, borderRadius = 0`):

1. Fullscreen Hold (2 seconds):
  - The video remains in full-page fullscreen for 2 seconds.
  - During these 2 seconds:
    - The scroll is effectively held/locked on the Hero section (the page does not immediately move to the next section).
    - The video stays centered and covers the full viewport.
2. Sound Behavior (Desktop):

- Before fullscreen:
- Video plays muted (thumbnail and transition states are always muted).
- When fullscreen state is reached:
- After reaching fullscreen, the video unmutes and audio plays while in this full-page state.
- After leaving fullscreen / going to the next section:
- When the user scrolls beyond the Hero section into the next section, the video is muted again.
- If the user scrolls back up into the Hero and hits fullscreen again, the same logic repeats:
- Muted during transition, unmute only in fullscreen, mute again when exiting.

Implementation Hint (State Machine):

- state = "thumbnail" | "transition" | "fullscreenHold" | "released"
  - On scrollYProgress reaching 1.0:
  - Enter fullscreenHold:
  - Unmute video
  - Start a 2-second timer before allowing scroll to continue normally.
  - On scroll beyond Hero (next section in view):
  - Mute video again and move to released.
- 

Entrance Animation (on page load):

```
initial: {
  opacity: 0,
  scale: 0.92,
  translateY: 60,
  filter: "blur(10px)"
}
animate: {
  opacity: 1,
  scale: [1.02, 1],           // settle with a slight overshoot
  translateY: 0,
  filter: "blur(0px)"
}
duration: 1.2s
easing: cubic-bezier(0.25, 0.46, 0.45, 0.94)
```

Hover (Desktop):

- Scale: 1 → 1.05
- Duration: 500ms

Click (Desktop):

- Clicking the thumbnail:
- Jumps directly to the fullscreen state (skips the gradual scroll animation).
- Triggers the same 2-second fullscreen hold and sound logic:
- Video unmutes while fullscreen,
- Video mutes again once the user scrolls to the next section.

Click (Mobile):

- Toggles sound (mute/unmute) on the mobile fullscreen video section (see below).
- 

#### Manifesto Section (Mobile)

On mobile, the manifesto video appears as a separate fullscreen section immediately below the Hero (no floating thumbnail).

#### Layout:

- Full viewport width, aspect-video height
- Background: #06071f (matches Hero for visual continuity)
- Video:
- Autoplay, loop, muted by default, playsInline
- Sound can be enabled by user interaction (tap)
- When the user scrolls away from this section, the video should revert to muted state

#### Animation (scroll reveal):

```
initial: { opacity: 0, scale: 0.95, y: 20 }
animate (when in view): { opacity: 1, scale: 1, y: 0 }
duration: 0.6s
easing: cubic-bezier(0.22, 1, 0.36, 1)
```

#### Accessibility:

- Video has no audio by default (muted until user explicitly enables sound).
  - Provide a clear control (icon/button) to toggle sound on/off.
  - Show a visible focus indicator if the video or sound toggle is focusable/tappable.
- 

## # \*\*4.3 Portfolio Showcase

\*\*Purpose:\*\* Clearly present work categories with editorial sophistication, guiding users toward specific areas of interest.

#### #### Layout (Desktop)

##### \*\*Structure:\*\*

- Centered headline: "portfólio showcase" (mixed color: "portfólio" in white, "showcase" in `#0048ff`)
- Floating label: "[what we love working on]" (`#4fe6ff`, positioned absolute, left-aligned near first stripe)
- Three interactive stripes (accordion-style rows), each with alternating alignment:
  1. \*\*Brand & Campaigns\*\* – aligned right
  2. \*\*Videos & Motions\*\* – centered
  3. \*\*Web Campaigns, Websites & Tech\*\* – aligned left (text breaks into two lines)

- CTA button below: "let's build something great →" (center-aligned)

#### \*\*Stripe Structure:\*\*

Each stripe contains:

- **Thumbnail** (hidden by default, reveals on hover): 288px width, aspect ratio ~16:9, rounded corners
- **Category Title**: Large text (2xl–5xl), medium weight
- **Icon**: Blue circular badge with arrow icon (rotates from -45° to 0° on hover)

#### #### Interactions (Desktop)

##### \*\*Hover on Stripe:\*\*

```
```javascript
// Thumbnail reveal
imageWrapper: { width: "0 → 288px", opacity: "0 → 1" }
duration: 700ms
easing: cubic-bezier(0.22, 1, 0.36, 1)

// Content gap adjustment
contentGap: { gap: "gap-7 → gap-10" }
duration: 300ms

// Arrow rotation
arrowIcon: { rotation: "-45deg → 0deg" }
duration: 500ms
````
```

##### \*\*Scroll Reveal:\*\*

- Trigger: 30% intersection with viewport
- Animation: Staggered fade-up, category titles turn blue (`#0057FF`)  
```javascript  
opacity: 0 → 1  
translateY: 24px → 0px  
duration: 0.8s ease-out  
stagger: 120ms between stripes  
````

##### \*\*Click:\*\*

- Navigates to `/portfolio` with category filter applied

#### #### Layout (Mobile)

- Full-width cards stacked vertically
- No floating label
- No thumbnail reveal (thumbnails remain hidden or shown static)
- All cards center-aligned
- Same CTA button at bottom

#### #### Categories & Assets

##### 1. \*\*Brand & Campaigns\*\*

- Slug: `brand-campaigns`

- **Thumbnail:**  
`<https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/project-images/Branding-Project.webp>`

## 2. \*\*Videos & Motions\*\*

- **Slug:** `videos-motions`
- **Thumbnail:**  
`<https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/project-images/webdesigner-2%202.gif>`

## 3. \*\*Web Campaigns, Websites & Tech\*\*

- **Slug:** `websites-webcampaigns-tech`
- **Thumbnail:**  
`[https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/project-images/WelcomeAd\\_800x500px.webp](https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/project-images/WelcomeAd_800x500px.webp)`

### #### CTA Button

**Text:** "let's build something great →"  
**Destination:** `/#contact`  
**Hover:** Background changes to `#4fe6ff`, arrow translates right  
(`translateX: 4px`)  
**Optional:** Subtle looping animation on arrow in idle state (`translateX: 0 → 4px → 0`)

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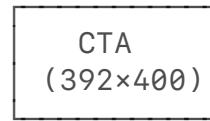
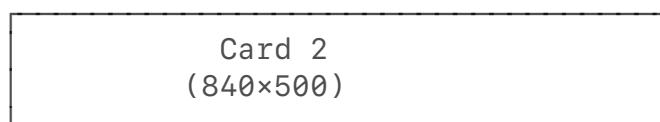
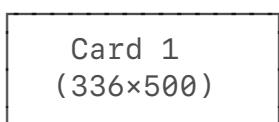
## # \*\*4.4 Featured Projects

**Purpose:** Showcase curated, high-quality work examples in an editorial, magazine-style layout (Bento Grid).

### #### Layout (Desktop)

Irregular grid resembling a magazine spread:

...



...

**Grid Implementation (Tailwind):**

```

```javascript
// Row 1
<div className="md:col-span-5"><ProjectCard /></div>
<div className="md:col-span-7"><ProjectCard /></div>

// Row 2
<div className="md:col-span-12"><ProjectCard /></div>

// Row 3
<div className="md:col-span-8"><ProjectCard /></div>
<div className="md:col-span-4"><CTAProjectCard /></div>
```

```

#### #### Project Cards

##### **Structure:**

- **Image/Video:** Covers card, object-fit cover
- **Pills (tags):** Positioned absolute, top-right, semi-transparent background (`#E6EFFE` at 70% opacity), small text
- **Info Block (below image):**
  - Title (H3, medium weight)
  - Meta: Client • Year (`#6B7280`, small text)
  - Arrow icon in blue circle (translates right on hover)

##### **Interaction (Desktop):**

```

```javascript
// Hover on card
image: { scale: 1.03, translateY: -1 }
duration: 500ms

arrow: { translateX: 20px }
duration: 700ms ease-out

shadow: { shadow-xl shadow-blue-500/10 }
```

```

##### **Scroll Reveal:**

```

```javascript
container: { opacity: 0 → 1, y: 40px → 0 }
cards: { scale: 0.96 → 1, staggerChildren: 0.12 }
duration: 0.7s ease-out
```

```

#### #### Featured Projects Content

##### 1. **Magic – devolvendo a magia ao rádio**

- Slug: `magic-radio-branding`
- Category: branding & campanha
- Client: Magic
- Year: 2023
- Image:  
`https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/project-images/Brand-Identity%20copy.webp`

##### 2. **Uma marca ousada e consistente**

- Slug: `branding-project-01`
- Category: branding
- Client: Cliente confidencial
- Year: 2022
- Image:  
`<https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/project-images/Branding-Project.webp>`

### 3. \*\*Key visual para campanha sazonal\*\*

- Slug: `key-visual-campaign`
- Category: campanha
- Client: Cliente confidencial
- Year: 2021
- Image:  
`<https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/project-images/Key-Visual.webp>`

### 4. \*\*Experiência web em movimento\*\*

- Slug: `webdesigner-motion`
- Category: web & motion
- Client: Cliente confidencial
- Year: 2023
- Image:  
`<https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/project-images/webdesigner-2%202.gif>`

#### #### CTA Card

##### \*\*Content:\*\*

- Headline: "Like what you see?" - font normal - (on hover, text becomes `#0057FF`)
- Button: "view projects →" with arrow icon
- Background: `#0d003b` (on hover, text becomes `#0057FF`)

##### \*\*Interaction:\*\*

```
```javascript
// Hover
background: { #0d003b }
text: { white → #0057FF }
arrow: { translateX: 4px }
duration: 300ms
```
```

##### \*\*Destination:\*\* `/portfolio`

#### #### Layout (Mobile)

- All cards stacked vertically
- Full-width, heights adapted to content/aspect ratio
- CTA card appears as last item

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## # \*\*4.5 Clients/Brands

**Purpose:** Build credibility by displaying recognizable brands previously worked with.

#### #### Layout

##### **Desktop & Mobile:**

- Full-width blue bar: `bg-[#0048ff]`
- Centered headline: "marcas com as quais já trabalhei" (white, bold, 2x1)
- Grid of logos: Responsive grid (3–4 columns on mobile, 6+ on desktop)
- Logos: White (apply `filter: brightness(0) invert` to SVGs)

#### #### Interaction

##### **Hover (Desktop):**

```
```javascript
logo: { scale: 1.04, brightness: 1.1 }
duration: 300ms
```
```

##### **Scroll Reveal:**

```
```javascript
title: { opacity: 0 → 1, y: 16 → 0 }
logos: {
  staggerChildren: 0.03,
  each: { opacity: 0 → 1, y: 12 → 0, scale: 0.9 → 1 }
}
```
```

#### #### Client Logos (12 total)

- `client1.svg` through `client12.svg`
- Base URL:  
`https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/client-logos/`

#### #### Accessibility

- Logos have descriptive `alt` text (e.g., "Logo da empresa X")
- Keyboard navigable (if logos link anywhere)
- Respect `prefers-reduced-motion` (disable entrance stagger)

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## # **4.6 Contact**

**Purpose:** Provide clear contact information and enable message submission.

#### #### Layout (Desktop)

Two-column layout:

- **Left column:** Contact info + social media links
- **Right column:** Contact form

#### #### Layout (Mobile)

Single column, vertically stacked:

1. Headline + subheadline
2. Contact info
3. Contact form
4. Social media links

#### #### Content

**Headline:** "contato"

**Subheadline:** "Tem uma pergunta ou quer trabalhar junto?"

#### #### Contact Information

**Direct Channels:**

- **Phone:** `+55 (11) 98396-6838`
  - Icon: Phone
  - Link: `tel:+5511983966838`
- **Email (primary):** `danilo@portfoliodanilo.com`
  - Icon: Envelope
  - Link: `mailto:danilo@portfoliodanilo.com`
- **Email (secondary):** `dannovaisv@gmail.com`
  - Icon: Envelope
  - Link: `mailto:dannovaisv@gmail.com`

**Interaction:**

- Text color: `#111111`
- Hover: Underline + color change to `#0057FF`
- Icons match text color

**Social Media & Portfolio:**

- Icons only (no text labels)
- Platforms: Instagram, Facebook, LinkedIn, Portfolio site, Twitter
- Color: `#111111`, hover: `#0057FF` + `scale(1.1)`
- All open in new tab (`target="\_blank"`, `rel="noopener noreferrer"`)

**Links:**

- Instagram: `https://instagram.com/danilo\_novais`
- Facebook: `https://facebook.com/danilonovaisvilela`
- LinkedIn: `https://linkedin.com/in/danilonovais`
- Portfolio: `https://portfoliodanilo.com`
- Twitter: `https://twitter.com/danilo\_novais`

#### #### Contact Form

**Fields:**

- Name (text input, required)
- Email (email input, required)
- Message (textarea, required)

**Submit Button:**

- Label: "Enviar Mensagem"
- Background: `#0048ff`

- Text: White
- Hover: Slight elevation (`translateY: -1px`), `scale(1.02)`
- Tap: `scale(0.98)`

#### **\*\*Form Action:\*\***

- Method: POST
- Endpoint: `https://formsubmit.co/danilo@portfoliodanilo.com`

#### **\*\*States:\*\***

- **Focus on input:** Border color `#0057FF`, shadow `ring-2 ring-blue-500`
- **Error:** Show validation message below field
- **Success:** Show success message, clear form
- **Loading:** Disable button, show spinner

#### #### Interactions & Animations

##### **\*\*Scroll Reveal:\*\***

```
```javascript
section: { opacity: 0 → 1, y: 24 → 0 }
form fields: { staggerChildren: 60ms }
duration: 0.6s
```

```

##### **\*\*Form Interactions:\*\***

```
```javascript
// Input focus
ring-2 ring-blue-500 ring-offset-2

// Button hover
{ scale: 1.02, y: -1 }

// Button tap
{ scale: 0.98 }
```

```

#### #### Accessibility

- All inputs have associated `` elements
- Keyboard navigable
- Focus indicators (`focus-visible`)
- Error messages programmatically associated with fields
- Minimum touch target size: 48x48px (mobile)

---

## # **4.7 Footer**

**Purpose:** Provide legal information, supplementary navigation, and social links while respecting the overall editorial aesthetic.

#### #### Desktop ( $\geq 1024\text{px}$ )

##### **\*\*Layout:\*\***

- Fixed bar at bottom of viewport

- Persistent (always visible)
- Horizontal layout: Copyright (left) | Navigation + Social (right)
- Height: `48–64px`

#### \*\*Behavior:\*\*

- `position: fixed`, `bottom: 0`, `z-index: 10`
- Does not scroll away

#### #### Mobile & Tablet (≤1023px)

#### \*\*Layout:\*\*

- Static section in document flow (last element on page)
- Vertical stack: Copyright → Navigation → Social
- \*\*Never fixed\*\*
- \*\*Never overlaps content\*\*

#### \*\*Spacing:\*\*

- Generous vertical padding: `py-10`
- Spacing between blocks: `space-y-6`
- Minimum touch target: 48×48px

#### #### Content

#### \*\*Copyright:\*\*

- "© 2025 Danilo Novais Vilela – todos os direitos reservados"
- Color: White
- Small text

#### \*\*Navigation Links:\*\*

- Home → `#hero`
- Portfólio Showcase → `#portfolio-showcase`
- Sobre → `/sobre`
- Contato → `#contact`

#### \*\*Social Media:\*\*

- Same icons and links as Contact section
- White icons, hover: slight opacity reduction (desktop) or focus indicator (mobile)

#### #### Background

- Solid blue: `bg-[#0057FF]`
- Text: White

#### #### Interactions

#### \*\*Desktop:\*\*

```
```javascript
// Hover on links
opacity: 1 → 0.8
underline animation
duration: 200ms
```

```
// Hover on social icons
scale: 1.05
```

duration: 200ms

```

#### **\*\*Mobile:\*\***

- No hover dependencies
- Feedback only on `:active` / `:focus-visible`

#### **#### Accessibility**

- All links have `aria-label` where needed
- Keyboard navigable
- Logical tab order
- Contrast: White on `#0057FF` meets WCAG AA
- Touch targets meet minimum 48x48px

#### **#### Non-Negotiables**

- Footer is **fixed only on desktop**
- Footer is **not fixed on mobile**
- No competition with Hero, Manifesto, or CTAs
- Clean, unobtrusive design

----

## # **5. TECHNICAL IMPLEMENTATION**

### **## 5.1 Technology Stack**

#### **Frontend Framework:**

- React 18+ (with hooks: `useState`, `useEffect`, `useRef`)
- Next.js 13+ (App Router preferred) or Create React App

#### **Styling:**

- Tailwind CSS (core utility classes only – no custom compiler plugins)
- CSS Modules for component-specific styles (optional)

#### **Animation:**

- Framer Motion (scroll reveals, micro-interactions, layout animations)
- React Three Fiber + Three.js (WebGL for Ghost Atmosphere)

#### **Available Libraries (if needed):**

- Lucide React (icons)
- Recharts (if data visualization needed)
- Lodash (utility functions)
- D3, Plotly, Chart.js (advanced visualizations – use sparingly)

#### **Form Handling:**

- FormSubmit.co (serverless form backend)
- Alternative: Netlify Forms, Formspree

#### **Assets:**

- Self-hosted fonts (TT Norms Pro)
- External assets via Supabase Storage (images, videos, SVG logos)
- CDN: <https://cdnjs.cloudflare.com> (only approved scripts)

## ### 5.2 Performance Requirements

### \*\*Budgets:\*\*

- Initial page weight: <2MB
- Time to Interactive (TTI): <5s on 3G
- First Contentful Paint (FCP): <2s
- Cumulative Layout Shift (CLS): <0.1

### \*\*Optimization Strategies:\*\*

- **Images:** WebP format, lazy loading, responsive `srcset`
- **Videos:** Compressed, muted autoplay, lazy load below fold
- **Fonts:** Self-hosted, preloaded, subset if possible
- **JavaScript:** Code splitting, dynamic imports for WebGL (client-side only)
- **CSS:** Purge unused Tailwind classes in production
- **WebGL:** Max DPR of 2, antialias disabled, conditional loading based on device capability

### \*\*Monitoring:\*\*

- Lighthouse CI (automate scores in build pipeline)
- Core Web Vitals tracking (Google Analytics or RUM)

## ### 5.3 Accessibility Standards

### \*\*Compliance:\*\* WCAG 2.1 Level AA minimum

### \*\*Key Requirements:\*\*

- **Keyboard Navigation:** All interactive elements focusable, logical tab order
- **Focus Indicators:** Visible on all focusable elements (`focus-visible:ring`)
- **Color Contrast:** Minimum 4.5:1 for normal text, 3:1 for large text
- **Semantic HTML:** Use ``, ``, ``, `

`, ``, ``, `` appropriately
- **ARIA:** Use `aria-label`, `aria-expanded`, `aria-hidden` where needed
- **Alt Text:** Descriptive alt text for all images (decorative images: `alt=""`)
- **Screen Reader Support:** Test with NVDA, JAWS, or VoiceOver
- **Motion:** Respect `prefers-reduced-motion` (disable non-essential animations)
- **Touch Targets:** Minimum 48x48px on mobile

### \*\*Testing Tools:\*\*

- axe DevTools (browser extension)
- Lighthouse Accessibility audit
- Manual keyboard navigation testing
- Manual screen reader testing

## ### 5.4 WebGL Implementation (Ghost Atmosphere)

**Purpose:** Create atmospheric visual layer in Hero section without controlling layout or text.

**Tech Stack:**

- React Three Fiber (declarative Three.js)
- Three.js r128 (CDN:  
<https://cdnjs.cloudflare.com/ajax/libs/three.js/r128/three.min.js>)
- Post-processing: Bloom, custom Analog Decay pass

**\*\*Component Architecture:\*\***

```
```
components/
  -- canvas/
    -- GhostCanvas.tsx (wrapper, handles loading/fallback)
    -- Ghost.tsx (main mesh: emissive sphere, eyes, movement)
    -- Particles.tsx (floating particle system)
    -- Fireflies.tsx (small light points)
    -- postprocessing/
      -- BloomPass.ts
      -- AnalogDecayPass.ts
```

```

**\*\*Critical Rules:\*\***

- **Dynamic import:** Load WebGL only client-side (`import('...')`)
- **No THREE.CapsuleGeometry:** Not available in r128, use alternatives
- **Performance:** DPR max 2, no antialias, instancing for particles
- **Fallback:** If WebGL fails or `prefers-reduced-motion`, show static gradient background
- **WebGL is decorative:** If Canvas crashes, site remains fully functional

**\*\*Ghost Movement:\*\***

```
```javascript
useFrame((state, delta) => {
  // Follow cursor
  ghost.position.lerp(targetPosition, 0.05);

  // Organic sine wave motion
  ghost.position.y += Math.sin(state.clock.elapsedTime * 0.8) * 0.001;
  ghost.position.x += Math.sin(state.clock.elapsedTime * 0.3) * 0.0005;

  // Emissive pulse
  material.emissiveIntensity = 1 + Math.sin(state.clock.elapsedTime) * 0.2;
});
```

```

**\*\*Reduced Motion:\*\***

```
```javascript
const reducedMotion = window.matchMedia('(prefers-reduced-motion: reduce)').matches;

if (reducedMotion) {
  // Disable WebGL entirely or use static version
  return <StaticGradientBackground />;
}
```

```

## # CTA Button Component Specification

**\*\*Component:\*\*** Primary Call-to-Action Button  
**\*\*Usage:\*\*** Portfolio Showcase, Featured Projects, Contact section  
**\*\*Status:\*\***  Standardized Pattern

---

## ## Visual Design

### ### Structure

The CTA button consists of two nested elements creating a composite interactive component:

```
```html
<div class="button-wrapper">
  <a href="#" class="flex items-stretch group">
    <span class="button-text">view projects</span>
    <span class="button-icon">→</span>
  </a>
</div>
```
```

### ### Layout Components

#### \*\*Text Container:\*\*

- Rounded left side (pill shape)
- Background: `#0048ff` (primary blue)
- Text: White, medium weight, uppercase tracking
- Padding: `px-6 py-3` (24px horizontal, 12px vertical)

#### \*\*Icon Container:\*\*

- Circular badge attached to right side
- Background: `#0048ff` (same as text container)
- Icon: White arrow (→) centered
- Size: Matches height of text container (creates pill + circle composite)

**\*\*Visual Reference:\*\*** See provided image – pill-shaped button with integrated circular arrow badge on dark navy background.

---

## ## Interaction & Animation

### ### Hover State (Desktop)

#### \*\*Primary Animation:\*\*

```
```css
/* Applied to the <a> element */
.cta-button:hover {
  transform: translateY(-1px);
  transition: transform 200ms ease-out;
}
```
```

**\*\*Behavior:\*\***

- **Trigger:** Mouse enters button area (entire composite element)
- **Effect:** Button lifts vertically by 1 pixel upward
- **Duration:** 200ms
- **Easing:** `ease-out` (starts fast, decelerates at end)
- **Properties animated:** `transform` only (GPU-accelerated, performant)

**\*\*Visual Feedback:\*\***

- Subtle elevation effect suggesting the button is "floating" up
- Creates tactile, responsive feel without being aggressive
- Maintains visual clarity and professionalism

### ### Secondary Interactions

**\*\*Optional Enhancements (based on section context):\*\***

1. **Arrow Translation (Portfolio Showcase, Featured Projects):**

```
```css
.cta-button:hover .button-icon {
  transform: translateX(4px);
  transition: transform 300ms ease-out;
}
```
```

```

- Arrow slides right by 4px
- Reinforces directionality and forward motion

2. **Background Color Shift (high-emphasis CTAs):**

```
```css
.cta-button:hover {
  background-color: #4fe6ff; /* accent light blue */
}
```
```

```

- Use sparingly for primary conversion actions
- Example: Contact section "let's build something great →"

3. **Idle Loop Animation (optional, subtle attention-grabber):**

```
```css
@keyframes arrow-pulse {
  0%, 100% { transform: translateX(0); }
  50% { transform: translateX(4px); }
}

.cta-button .button-icon {
  animation: arrow-pulse 2s ease-in-out infinite;
}
```
```

```

- Very subtle, slow oscillation of arrow
- Pauses on hover (replaced by interactive animation)

### ### Active/Tap State (Mobile)

```
```css
.cta-button:active {
  transform: scale(0.98);
}
```

```
    transition: transform 100ms ease-out;
}

```
- Brief compression effect on tap
- Provides tactile feedback on touch devices
- Faster duration (100ms) for immediate response

```

### ### Focus State (Keyboard Navigation)

```
```css
.cta-button:focus-visible {
  outline: 2px solid #4fe6ff;
  outline-offset: 4px;
  transition: outline-offset 150ms ease-out;
}

```

```

- Clear, accessible focus indicator
- Offset prevents overlap with button edges
- Matches accent color for brand consistency

----

## ## Technical Implementation

### ### Framer Motion (Recommended)

```
```tsx
import { motion } from 'framer-motion';

export const CTAButton = ({ href, children, variant = 'primary' }) => {
  return (
    <motion.a
      href={href}
      className="cta-button flex items-stretch group"
      whileHover={{ y: -1 }}
      whileTap={{ scale: 0.98 }}
      transition={{ duration: 0.2, ease: 'easeOut' }}
    >
      <span className="button-text">{children}</span>
      <motion.span
        className="button-icon"
        whileHover={{ x: 4 }}
        transition={{ duration: 0.3, ease: 'easeOut' }}
      >
        →
      </motion.span>
    </motion.a>
  );
}

```

```

### ### CSS-Only Implementation (Fallback)

```
```css
.cta-button {
  display: inline-flex;
  align-items: stretch;
  background-color: #0048ff;
  border-radius: 9999px;
  color: white;
  text-decoration: none;
  font-weight: 500;
  text-transform: uppercase;
  letter-spacing: 0.05em;
  transition: transform 200ms ease-out;
}

.cta-button:hover {
  transform: translateY(-1px);
}

.cta-button:active {
  transform: scale(0.98);
  transition-duration: 100ms;
}

.cta-button:focus-visible {
  outline: 2px solid #4fe6ff;
  outline-offset: 4px;
}

.button-text {
  padding: 0.75rem 1.5rem;
}

.button-icon {
  display: flex;
  align-items: center;
  justify-content: center;
  width: 48px;
  height: 48px;
  border-radius: 50%;
  background-color: inherit;
  transition: transform 300ms ease-out;
}

.cta-button:hover .button-icon {
  transform: translateX(4px);
}
```
---
```

## ## Accessibility & Performance

### ### Accessibility Compliance

## **\*\*WCAG Requirements:\*\***

- **Contrast ratio:** 4.5:1 minimum (white text on `#0048ff` blue)
- **Focus indicator:** Clear 2px outline with 4px offset
- **Touch target:** Minimum 48x48px (pill height + icon width meet requirement)
- **Keyboard operable:** Fully navigable via Tab key
- **Screen reader friendly:** Semantic `` element with descriptive text

## **\*\*Reduced Motion Support:\*\***

```
```css
@media (prefers-reduced-motion: reduce) {
  .cta-button,
  .cta-button *,
  .cta-button::before,
  .cta-button::after {
    animation-duration: 0.01ms !important;
    animation-iteration-count: 1 !important;
    transition-duration: 0.01ms !important;
  }
}
```

```

- Respects user's motion preferences
- Maintains layout and functionality
- Disables all non-essential animations

## **### Performance Considerations**

### **\*\*Why This Approach is Performant:\*\***

1. **GPU Acceleration:** `transform` properties are composited on GPU, avoiding expensive repaints
2. **Single Property Animation:** Only animating `transform` reduces computational overhead
3. **Short Duration:** 200ms is fast enough to feel instant while remaining smooth
4. **No Layout Thrashing:** Transform doesn't trigger reflow/relayout (unlike animating `top`, `margin`, etc.)

### **\*\*Performance Monitoring:\*\***

```
```javascript
// Check animation frame rate in DevTools
const button = document.querySelector('.cta-button');
button.addEventListener('mouseenter', () => {
  performance.mark('hover-start');
});
button.addEventListener('transitionend', () => {
  performance.mark('hover-end');
  performance.measure('hover-animation', 'hover-start', 'hover-end');
});
```

```

## \*\*View Transitions API (Future Enhancement):\*\*

For page-level transitions involving CTAs (e.g., navigating from homepage to portfolio):

```
```javascript
// Experimental - requires browser support check
if (document.startViewTransition) {
  document.startViewTransition(() => {
    // Update DOM/navigate
    window.location.href = ctaHref;
  });
}
```

```

- Provides smoother, more contextual transitions between pages
- Automatically handles element morphing and positioning
- Not applicable to simple hover states, but valuable for navigation flows

---

## ## Variants

### ### Primary CTA (Default)

- **Background:** `#0048ff`
- **Text:** White
- **Usage:** Main conversion actions (e.g., "view projects", "let's build something great")

### ### Secondary CTA (Outline)

- **Background:** Transparent
- **Border:** 2px solid `#0048ff`
- **Text:** `#0048ff`
- **Hover:** Background fills with `#0048ff`, text becomes white
- **Usage:** Secondary actions, alternative choices

### ### Accent CTA (High Emphasis)

- **Background:** `#4fe6ff` (light blue)
- **Text:** `#0e0e0e` (dark inverse text)
- **Hover:** Background darkens slightly to `#0048ff`, text becomes white
- **Usage:** Urgent or high-priority actions

---

## ## Usage Guidelines

### ### When to Use

#### \*\*Primary CTAs:\*\*

- End of Portfolio Showcase section: "let's build something great →"
- Featured Projects CTA card: "view projects →"
- Contact section: "Enviar Mensagem"

## **\*\*Secondary CTAs:\*\***

- "Ver todos os projetos →" (Portfolio Showcase alternate action)
- Newsletter signup (if implemented)

### **### When NOT to Use**

- **✗** Navigation links (use simple text links or header navigation)
- **✗** Social media icons (use icon-only buttons)
- **✗** Inline text links within paragraphs

### **### Spacing**

- Minimum 24px vertical spacing above/below CTA
- Center-align in sections (Portfolio Showcase, Featured Projects)
- Left-align in forms (Contact section submit button)

---

## **## QA Checklist**

### **\*\*Visual:\*\***

- [ ] Button maintains pill + circle composite shape at all breakpoints
- [ ] Text and icon are vertically centered
- [ ] Icon is perfectly circular
- [ ] Colors match design tokens (`#0048ff`, white)

### **\*\*Interaction (Desktop):\*\***

- [ ] Hover lifts button by 1px smoothly
- [ ] Arrow translates right by 4px (if enabled)
- [ ] Transition feels snappy but not jarring (200ms)
- [ ] No layout shift or flickering

### **\*\*Interaction (Mobile):\*\***

- [ ] Tap produces subtle scale-down effect
- [ ] No hover animations triggered on touch
- [ ] Touch target is large enough (48x48px minimum)

### **\*\*Accessibility:\*\***

- [ ] Focus indicator visible when navigating via keyboard
- [ ] Screen reader announces button text correctly
- [ ] Color contrast meets WCAG AA (4.5:1)
- [ ] Reduced motion preference disables animations

### **\*\*Performance:\*\***

- [ ] No janky animation (smooth 60fps)
- [ ] DevTools Performance panel shows composited layers (green)
- [ ] No excessive repaints visible in Paint Flashing mode

---

## **## Code Example (Complete Component)**

```
```tsx
```

```

import { motion } from 'framer-motion';
import { ArrowRight } from 'lucide-react';

interface CTAButtonProps {
  href: string;
  children: React.ReactNode;
  variant?: 'primary' | 'secondary' | 'accent';
  arrowAnimation?: boolean;
  className?: string;
}

export const CTAButton: React.FC<CTAButtonProps> = ({ href, children, variant = 'primary', arrowAnimation = true, className = '' }) => {
  const variants = {
    primary: 'bg-[#0048ff] text-white',
    secondary: 'bg-transparent border-2 border-[#0048ff] text-[#0048ff] hover:bg-[#0048ff] hover:text-white',
    accent: 'bg-[#4fe6ff] text-[#0e0e0e] hover:bg-[#0048ff] hover:text-white'
  };
  return (
    <motion.a href={href} className={` inline-flex items-stretch rounded-full font-medium uppercase tracking-wide transition-colors duration-300 focus-visible:outline-2 focus-visible:outline-[#4fe6ff] focus-visible:outline-offset-4 ${variants[variant]} ${className}`}>
      {children}
      <span className="px-6 py-3">{children}</span>
      <motion.span className="flex items-center justify-center w-12 h-12 rounded-full" whileHover={arrowAnimation ? { x: 4 } : {}} transition={{ duration: 0.3, ease: 'easeOut' }}>
        <ArrowRight className="w-5 h-5" />
      </motion.span>
    </motion.a>
  );
};
```

```

---

**Summary:** This CTA pattern balances visual elegance with technical performance. The 1px vertical lift on hover is subtle yet effective, creating a sense of depth without overwhelming the user. Animating only `transform` properties ensures GPU acceleration and smooth 60fps animations across devices. The composite pill + circle shape is distinctive and aligns with modern UI trends while remaining accessible and keyboard-navigable.

### ### 5.5 Build & Deployment

#### **Build Command (Next.js):**

```
```bash
npm run build
```
```

#### **Environment Variables:**

```
```bash
# If using analytics
NEXT_PUBLIC_GA_ID=UA-XXXXXXXX-X

# If using Supabase for future features
NEXT_PUBLIC_SUPABASE_URL=https://aymuvxysygrwoicsjgxj.supabase.co
NEXT_PUBLIC_SUPABASE_ANON_KEY=<anon_key>
```
```

#### **Deployment Platforms:**

- Vercel (recommended for Next.js)
- Netlify
- Cloudflare Pages

#### **Pre-Deployment Checklist:**

- [ ] Run Lighthouse audit (Performance 90+, Accessibility 100)
- [ ] Test on mobile devices (iOS Safari, Android Chrome)
- [ ] Validate all forms submit successfully
- [ ] Check all external links open correctly
- [ ] Verify videos autoplay (muted) on all browsers
- [ ] Test with `prefers-reduced-motion` enabled
- [ ] Confirm WebGL fallback works

## # \*\*6. APPENDICES

### ### A. Content Inventory

Comprehensive list of all text, media, and interactive content required:

#### **Text Content:**

- Hero headline, subheadline, CTA
- Portfolio Showcase: Section title, category names, floating label, CTA
- Featured Projects: Section title, 4 project titles + metadata
- Clients/Brands: Section title

- Contact: Section title, subheadline, form labels, contact info, social links
- Footer: Copyright, navigation labels

**\*\*Media Assets:\*\***

- 4 logos (Favicon, Favicon Light, Logo Light, Logo Dark)
- 1 manifesto video (MP4)
- 3 portfolio showcase thumbnails
- 4 featured project images (3 static, 1 GIF)
- 12 client logos (SVG)

**\*\*Interactive Elements:\*\***

- Header navigation (desktop glass effect, mobile staggered menu)
- Hero Ghost WebGL canvas
- Manifesto video (scroll-triggered growth on desktop)
- Portfolio showcase stripes (hover reveals)
- Featured project cards (hover interactions)
- Contact form (validation, submission)
- All CTAs and links

### B. Asset URLs

**\*\*Logos:\*\***

- Favicon:  
`[https://aymuvxysygrwoiccsjgxj.supabase.co/storage/v1/object/public/logo\\_site/Favicon.svg](https://aymuvxysygrwoiccsjgxj.supabase.co/storage/v1/object/public/logo_site/Favicon.svg)`
- Favicon Light:  
`[https://aymuvxysygrwoiccsjgxj.supabase.co/storage/v1/object/public/logo\\_site/FaviconLight.svg](https://aymuvxysygrwoiccsjgxj.supabase.co/storage/v1/object/public/logo_site/FaviconLight.svg)`
- Logo Light:  
`[https://aymuvxysygrwoiccsjgxj.supabase.co/storage/v1/object/public/logo\\_site/LogoLight.svg](https://aymuvxysygrwoiccsjgxj.supabase.co/storage/v1/object/public/logo_site/LogoLight.svg)`
- Logo Dark:  
`[https://aymuvxysygrwoiccsjgxj.supabase.co/storage/v1/object/public/logo\\_site/LogoDark.svg](https://aymuvxysygrwoiccsjgxj.supabase.co/storage/v1/object/public/logo_site/LogoDark.svg)`

**\*\*Videos:\*\***

- Manifesto:  
`<https://aymuvxysygrwoiccsjgxj.supabase.co/storage/v1/object/public/project-videos/VIDEO-APRESENTACAO-PORTFOLIO.mp4>`

**\*\*Portfolio Showcase Thumbnails:\*\***

- Brand & Campaigns:  
`<https://aymuvxysygrwoiccsjgxj.supabase.co/storage/v1/object/public/project-images/Branding-Project.webp>`
- Videos & Motions:  
`<https://aymuvxysygrwoiccsjgxj.supabase.co/storage/v1/object/public/project-images/webdesigner-2%202.gif>`
- Web Campaigns/Websites/Tech:  
`[https://aymuvxysygrwoiccsjgxj.supabase.co/storage/v1/object/public/project-images/WelcomeAd\\_800x500px.webp](https://aymuvxysygrwoiccsjgxj.supabase.co/storage/v1/object/public/project-images/WelcomeAd_800x500px.webp)`

**\*\*Featured Projects:\*\***

- Magic Radio:  
`<https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/project-images/Brand-Identity%20copy.webp>`
- Branding Project 01:  
`<https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/project-images/Branding-Project.webp>`
- Key Visual Campaign:  
`<https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/project-images/Key-Visual.webp>`
- Webdesigner Motion:  
`<https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/project-images/webdesigner-2%202.gif>`

#### **\*\*Client Logos:\*\***

- Base URL:  
`<https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/client-logos/>`
- Files: `client1.svg` through `client12.svg`

### ### C. Non-Negotiables Checklist

Critical requirements that must not be compromised:

#### #### Technical

- [ ] No localStorage/sessionStorage usage (Claude.ai artifact restriction)
- [ ] WebGL is decorative only – site functions fully if WebGL fails
- [ ] Text content never depends on shaders or WebGL rendering
- [ ] All animations respect `prefers-reduced-motion`
- [ ] Mobile performance: No janky scrolling, smooth 60fps interactions

#### #### Design

- [ ] Hero: Static editorial text, no scroll-triggered text animations
- [ ] Header (desktop): Fluid glass effect with subtle cursor follow (no aggressive "chiclete" behavior)
- [ ] Header (mobile): Staggered menu with proper animation sequence
- [ ] Portfolio Showcase: Alternating stripe alignment (right, center, left)
- [ ] Featured Projects: Bento grid layout with irregular proportions
- [ ] Footer (desktop): Fixed at bottom
- [ ] Footer (mobile): Static in document flow, never fixed

#### #### Content

- [ ] Copyright year: 2025
- [ ] All project metadata accurate (client, year, category)
- [ ] Form action endpoint:  
`<https://formsubmit.co/danilo@portfoliodanilo.com>`
- [ ] All external links open in new tab with `rel="noopener noreferrer"`

#### #### Accessibility

- [ ] WCAG AA compliance minimum
- [ ] Keyboard navigation fully functional
- [ ] Focus indicators visible on all interactive elements
- [ ] Color contrast meets minimum ratios
- [ ] Touch targets minimum 48x48px on mobile

### ### D. QA Checklist

## **\*\*Visual (Desktop)\*\***

- [ ] Header: Fluid glass effect works, no layout shift on hover
- [ ] Hero: Ghost atmosphere loads, text remains centered and legible
- [ ] Manifesto video: Starts small (bottom-right), grows smoothly on scroll
- [ ] Portfolio Showcase: Stripes aligned correctly (right, center, left), thumbnails reveal on hover
- [ ] Featured Projects: Bento grid proportions match design, hover effects smooth
- [ ] Clients/Brands: Logo grid centered, logos scale subtly on hover
- [ ] Contact: Two-column layout, form validation works
- [ ] Footer: Fixed at bottom, links work

## **\*\*Visual (Mobile)\*\***

- [ ] Header: Hamburger opens staggered menu correctly
- [ ] Hero: Text legible, no WebGL performance issues
- [ ] Manifesto: Separate fullscreen section appears below Hero
- [ ] Portfolio Showcase: Cards stacked vertically, full-width
- [ ] Featured Projects: Cards stacked vertically
- [ ] Clients/Brands: Logo grid adapts to smaller columns
- [ ] Contact: Single-column layout, form fields large enough
- [ ] Footer: Static at bottom of page, not fixed

## **\*\*Functionality\*\***

- [ ] All navigation links work (internal anchors + page routes)
- [ ] Contact form submits successfully
- [ ] Videos autoplay muted
- [ ] Social media icons open correct URLs in new tabs
- [ ] No console errors
- [ ] No horizontal scrolling on mobile

## **\*\*Performance\*\***

- [ ] Lighthouse Performance score: 90+
- [ ] Lighthouse Accessibility score: 100
- [ ] Page loads in <3s on 3G
- [ ] No layout shift (CLS <0.1)
- [ ] Smooth scrolling and interactions

## **\*\*Accessibility\*\***

- [ ] Keyboard navigation: All interactive elements reachable via Tab
- [ ] Screen reader: All content announced correctly
- [ ] Focus indicators visible
- [ ] Color contrast passes WCAG AA
- [ ] Touch targets meet 48x48px minimum (mobile)
- [ ] `prefers-reduced-motion` disables non-essential animations

## **\*\*Cross-Browser\*\***

- [ ] Chrome (desktop & mobile)
- [ ] Safari (desktop & mobile)
- [ ] Firefox (desktop)
- [ ] Edge (desktop)

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## # \*\*5. Final Check

### ### How Coherence Improved

1. **Unified language and terminology**: Standardized technical terms, component names, and references throughout the document (e.g., consistently using "Ghost Atmosphere" instead of mixing "Ghost Blue," "atmospheric layer," etc.)
2. **Clear separation of concerns**: Design system is now centralized, eliminating repeated color/typography definitions across sections
3. **Logical information flow**: Document progresses from high-level vision → design principles → component specs → technical details, matching natural mental models

### ### How Organization Improved

1. **Hierarchical structure with clear sections**: Main sections (Overview, Design System, Architecture, Components, Implementation, Appendices) make it easy to navigate to specific information
2. **Consistent component specification format**: Every component follows the same structure (Purpose → Layout → Interactions → Accessibility), making it predictable and scannable
3. **Consolidated reference materials**: All asset URLs, non-negotiables, and QA checklists are in appendices rather than scattered throughout

### ### How Clarity and Professionalism Improved

1. **Reduced redundancy**: Eliminated repetitive explanations of color values, fonts, and accessibility principles by centralizing them in the Design System section
2. **Precise, actionable language**: Replaced vague descriptions with specific measurements, code examples, and behavior definitions (e.g., "subtle movement" became "lerp factor of 0.05, max translateX: 40–60px")
3. **Visual aids and examples**: Added ASCII diagrams for layouts (Bento grid, z-index stack) and code snippets demonstrating exact animation parameters, making abstract concepts concrete

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## ## Questions for You

1. **Success Metrics Validation**: Are the proposed metrics (session duration, click-through rates, form conversions) aligned with your actual business goals, or should different KPIs be prioritized?
2. **Content Completeness**:
  - Are there any missing project details (awards, recognition, specific outcomes)?
  - Should any of the "Cliente confidencial" projects have real client names revealed?
  - Are the year dates (2021–2023) accurate, or should they be updated?
3. **Technical Constraints Clarification**:

- Is Next.js the confirmed framework, or are you using a different React setup?
  - Do you have TT Norms Pro licensed and self-hosted, or should I suggest specific fallback strategies?
  - Are there any additional technical limitations from your hosting environment?
4. **\*\*WebGL Complexity\*\***: The current spec describes a fairly complex 3D scene (Ghost mesh, particles, fireflies, post-processing). Have you tested this on target devices to confirm performance is acceptable, or should I simplify the fallback recommendations?
5. **\*\*Form Handling\*\***: FormSubmit.co is specified, but have you tested this service for your needs (anti-spam, email delivery, etc.), or would you prefer recommendations for alternatives?
6. **\*\*Analytics & Tracking\*\***: The document mentions tracking events but doesn't specify a platform. Should I add specific implementation notes for Google Analytics, Plausible, or another tool?