


Danilo Novais Portfolio Homepage

Technical Documentation & Design Specifications

****Version:**** 2.0

****Last Updated:**** December 31, 2025

****Status:****  Ready for Implementation

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

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`	`#0b0d3a`	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:****

```
```\njavascript\n// Scroll reveal\ninitial={{ opacity: 0, y: 24 }}\nwhileInView={{ opacity: 1, y: 0 }}\ntransition={{ duration: 0.6, ease: [0.22, 1, 0.36, 1] }}
```

```
// Hover (buttons, cards)\nwhileHover={{ scale: 1.02, y: -2 }}\ntransition={{ duration: 0.3 }}
```

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

### ### 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

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#### 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 (≥1024px): 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]

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#### 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.

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#### 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).

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### 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.

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## # \*\*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`

### #### 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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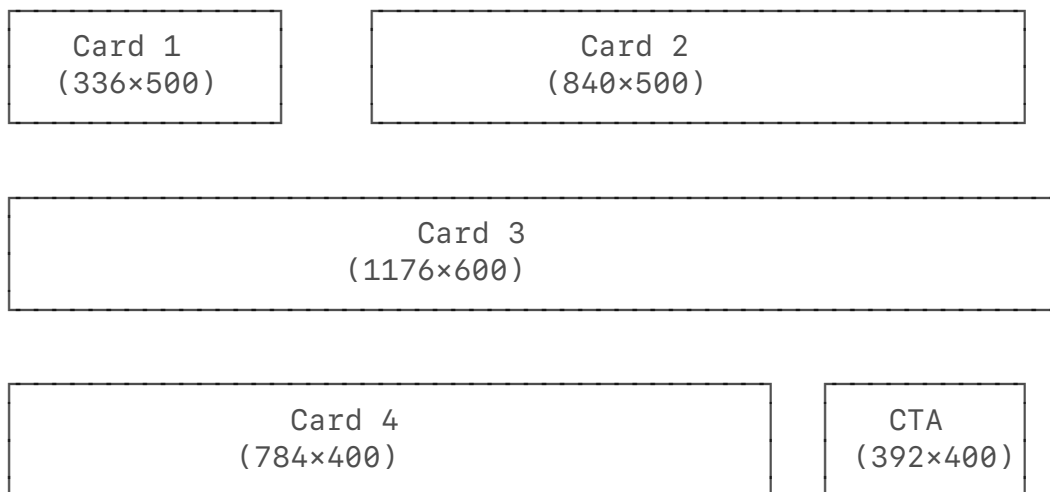
## # **4.4 Featured Projects**

**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 (`#E6EFEF` 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, 2xl)
- 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://formssubmit.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: 48×48px (mobile)

---

## # **\*\*4.7 Footer**

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

#### #### Desktop (≥1024px)

##### **\*\*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 ( $\leq 1023px$ )

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

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

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

- Generous vertical padding: `py-10`
- Spacing between blocks: `space-y-6`
- Minimum touch target: 48x48px

#### Content

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

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

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

- Home  $\rightarrow$  `#hero`
- Portfólio Showcase  $\rightarrow$  `#portfolio-showcase`
- Sobre  $\rightarrow$  `/sobre`
- Contato  $\rightarrow$  `#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  $\rightarrow$  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 48×48px

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">

 view projects
 >

</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 (48×48px 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}
      `}
      whileHover={{ y: -1 }}
      whileTap={{ scale: 0.98 }}
      transition={{ duration: 0.2, ease: 'easeOut' }}
      aria-label={typeof children === 'string' ? children : undefined}
    >
      <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-XXXXXXXXX-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://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:
`https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/logo_site/LogoLight.svg`
- Logo Dark:
`https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/logo_site/LogoDark.svg`

****Videos:****

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

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

- Brand & Campaigns:
`https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/project-images/Branding-Project.webp`
- Videos & Motions:
`https://aymuvxysygrwoicsjgxj.supabase.co/storage/v1/object/public/project-images/webdesigner-2%202.gif`
- Web Campaigns/Websites/Tech:
`https://aymuvxysygrwoicsjgxj.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://formssubmit.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)

**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

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?