Here is a comprehensive breakdown of your requests, covering the technical implementation, content strategy, and design principles for your futuristic AI-themed website.

1. Hosting a React Native Website on Google Cloud Run

While you can't host a "React Native" website directly, you can host a **React Native for Web** project. The process involves containerizing your web-ready application and deploying it to Google Cloud Run, a serverless platform that's excellent for scalability and ease of use.

Technical Requirements & Steps:

1. **Containerize Your Application with Docker:** Cloud Run works by deploying containers. You'll need to create a `Dockerfile` in the root of your React Native for Web project. This file tells Google Cloud how to build an image of your application.
    - **Multi-Stage Build:** A best practice is to use a multi-stage build. The first stage builds your static web files (using `npm run web-build` or a similar command), and the second stage uses a lightweight web server like Nginx to serve those files. This keeps the final container image small and secure.
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3. **Submit the Build to Google Cloud Build:** You can configure Google Cloud Build to automatically detect your `Dockerfile`, build the container image, and push it to the Google Artifact Registry (or Container Registry).
4. **Deploy to Cloud Run:** Once your container image is built and stored, you can create a new Cloud Run service. You will point it to the container image you just created.
    - **Configuration:** You'll set configurations for memory, CPU, and importantly, you'll configure it to allow public (unauthenticated) access so visitors can reach your site. Cloud Run will provide you with a default URL (`something.run.app`).
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2. Pointing a Squarespace Domain to Google Cloud Run

Connecting your custom domain from Squarespace to your live Cloud Run service is a two-part process involving configuration on both platforms.

Necessary Steps:

1. **Add a Custom Domain Mapping in Google Cloud Run:**
    - In the Google Cloud console, navigate to your Cloud Run service and select the "Custom Domains" tab.

    - Click "Add Mapping" and enter the domain name you purchased from Squarespace (e.g., `www.your-ai-site.com`). Google will then provide you with the specific DNS records (typically A, AAAA, or CNAME records) that you need to add to Squarespace.
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3. **Update DNS Records in Squarespace:**
    - Log in to your Squarespace account and go to the "Domains" panel.
    - Select the domain you want to connect.
    - Go to "DNS Settings" (sometimes called "Advanced Settings").
    - Here, you will add the DNS records provided by Google Cloud Run. You will likely need to delete any default Squarespace records to avoid conflicts.
        - **For A and AAAA records:** You'll point them to the IP addresses Google provides.
        - **For a CNAME record:** You'll typically point your subdomain (like `www`) to the Google Cloud service URL (e.g., `ghs.googlehosted.com.`).
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    - **Propagation:** DNS changes can take anywhere from a few minutes to 48 hours to fully propagate across the internet.
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3. Product Requirements Document (PRD)

This document outlines the vision, features, and goals for your website.

- **1. Introduction & Vision:**
    - **Product Name:** [Your Website Name]
    - **Vision:** To create a sleek, high-performance digital hub for exploring innovative AI projects, staying updated on the latest AI news, and accessing professional AI consulting services. The platform will serve as a personal brand showcase and a resource for the AI community.
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- **2. User Personas:**
    - **The Tech Enthusiast:** A visitor interested in the latest AI trends and projects. They will primarily engage with the "AI Projects" and "AI News" sections.
    - **The Potential Client:** A business leader or individual looking for AI expertise. They will focus on the "Consulting," "About," and "Contact" sections to evaluate credibility and services.

    - **The Newsletter Subscriber:** A user who wants curated AI news delivered to their inbox. They will interact with the "Newsletter" signup form.
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- **3. Features & Requirements:**
    - **Homepage:** A visually striking landing page that introduces the brand and directs users to the main sections.
    - **AI Projects Showcase:** A filterable gallery of AI projects with dedicated detail pages for each, including descriptions, tech stacks, and visuals.
    - **AI News Blog:** A dynamic feed of articles and insights on artificial intelligence, managed through a CMS.
    - **Consulting Services Page:** A professional overview of the consulting services offered, with a clear call-to-action.
    - **About Page:** A section to detail personal background, expertise, and mission.
    - **Contact Form:** A simple and effective way for users to get in touch.
    - **Newsletter Signup:** An integrated form to capture email addresses for a newsletter.
    - **Admin Panel:** A secure backend interface for managing projects, blog posts, and newsletter content.
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- **4. Success Metrics:**
    - Monthly unique visitors and page views.
    - Number of newsletter subscribers.
    - Number of inquiries through the contact form.
    - Page load speed and performance scores (e.g., Google Lighthouse).
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4. CMS and Email Service Recommendations

To manage your "AI News" and "Newsletter" features efficiently, you'll want to integrate a headless CMS and an email service provider.

- **Headless CMS Options (for the Admin Screen):** A headless CMS separates the content management backend from the frontend presentation, which is perfect for a custom React site.
    - **Strapi:** An open-source, self-hosted option that gives you full control. It's highly customizable and has a great admin UI.
    - **Contentful:** A popular, cloud-based solution known for its ease of use and robust API. It's a great choice if you don't want to manage the hosting for your CMS.

    - **Sanity.io:** Known for its real-time content editing and highly customizable "Sanity Studio" admin panel, which is itself a React application.
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- **Email Service Providers (for the Newsletter):**
    - **Mailchimp:** Very user-friendly with great email templates. You can use its API to add subscribers from your website form and potentially trigger campaigns when you publish a new blog post.
    - **SendGrid:** A more developer-focused platform that offers powerful APIs for sending transactional emails and marketing campaigns. This would be a great choice for automating newsletter generation directly from your CMS content.
    - **ConvertKit:** Excellent for creators and focused on audience building, with powerful automation features.
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Integration Flow:

1. You write an "AI News" article in your chosen CMS (e.g., Strapi).
2. Your React Native for Web app fetches this article via an API call and displays it.
3. Using a webhook or a serverless function, publishing a new article in the CMS triggers a process that sends the content to your email provider (e.g., SendGrid).
4. SendGrid then formats it into a newsletter and sends it to your subscriber list.

5. Futuristic & AI-Themed Design Principles

To achieve a futuristic, simple, and fast-loading aesthetic, focus on these principles:

- **Design Principles:**
    - **Minimalism:** Use ample white space (or "dark space") to let content breathe. Avoid clutter.
    - **Glassmorphism/Glow Effects:** Use subtle blurs, transparency, and soft glows on UI elements to create a futuristic, high-tech feel.
    - **Micro-interactions:** Implement subtle animations and hover effects that provide feedback without slowing down the site.
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- **Color Palettes:**
    - **Dark Mode Dominance:** A dark background is classic for a futuristic theme. It makes accent colors pop.
    - **Accent Colors:** Use a vibrant, neon-like accent color for key elements. Think electric blue, magenta, or a bright cyan.

    - **Example Palette:**
        - **Primary Background:** Very dark navy or charcoal (`#0A192F`)
        - **Secondary Background:** Slightly lighter grey (`#112240`)
        - **Primary Text:** Off-white or light grey (`#CCD6F6`)
        - **Accent/Highlight:** Bright cyan or neon green (`#64FFDA`)
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- **UI Patterns:**
    - **Geometric Shapes & Lines:** Use sharp angles and thin, glowing lines to frame content or as background elements.
    - **Monospaced Fonts:** Use a clean, monospaced font for headings or code snippets to give a technical, "terminal-like" feel.
    - **Clean Typography:** For body text, choose a highly readable sans-serif font like Inter or Poppins.
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6. Ensuring a "Blazingly Fast" Website

Performance is key. Here's how to achieve it with a React Native for Web setup:

- **Static Site Generation (SSG):** This is the most important technique for performance. Instead of rendering pages on the fly, you pre-build them as static HTML, CSS, and JavaScript files.
    - **Use a Framework:** While you can use React Native for Web, frameworks like **Next.js** (which supports React Native for Web) or **Expo for Web** are built with performance optimizations like SSG and code splitting in mind.
    - **How it Works:** At build time, your site will fetch all the content from your CMS and generate a static page for each article and project. When a user visits, the page loads instantly.
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- **Other Best Practices:**
    - **Image Optimization:** Use modern image formats like WebP and AVIF. Compress images and use lazy loading so they only load when they enter the viewport.
    - **Code Splitting:** Break your JavaScript bundle into smaller chunks that are loaded on demand. For example, the code for your "Contact" page doesn't need to be loaded on the homepage.
    - **Minimize Re-renders:** Use React's performance features like `React.memo`, `useCallback`, and `useMemo` to prevent unnecessary component re-renders.

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7. Detailed Feature List & Sitemap

This outlines the structure and navigation of your website.

Feature List:

- **Global:**
    - Responsive Navigation Bar
    - Footer with Social Links and Copyright
    - Newsletter Signup Component (reusable)
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- **Homepage:**
    - Hero section with a compelling headline.
    - Brief intro to each main section (Projects, News, Consulting).
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- **AI Projects:**
    - Gallery page with project cards (image, title, short description).
    - Filtering/sorting functionality (by technology, by date).
    - Individual project detail pages.
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- **AI News (Blog):**
    - Main blog page with a list of recent articles.
    - Individual article pages with social sharing buttons.
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- **Consulting:**
    - Services offered.
    - Process/methodology.
    - Clear call-to-action (e.g., "Book a Free Consultation").
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- **Admin Panel (via Headless CMS):**
    - Secure login.
    - CRUD (Create, Read, Update, Delete) functionality for Projects.
    - CRUD functionality for News articles.
    - View and manage newsletter subscribers.
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Sitemap:

- `/` (Homepage)
- `/projects`
  - `/projects/[project-slug]` (e.g., `/projects/sentient-ai-chatbot`)
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- `/news`
  - `/news/[article-slug]` (e.g., `/news/the-future-of-generative-ai`)
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- `/consulting`
- `/about`
- `/contact`
- `/admin` (This would lead to your Headless CMS login screen)

Navigation Flows:

- **Main Site:** A user can navigate between all main sections via the primary navigation bar. The homepage will guide them to the key content areas. From a list page (like `/news`), they can click to view a detail page (like a specific article).
- **Admin Flow:** The site administrator would navigate directly to `/admin`, log in, and be presented with the CMS dashboard where they can manage all dynamic content on the site without touching any code.