Design Document for MichaelGrinnell.com and DJ.MichaelGrinnell.com

# Project Overview

**Objective**: The primary objective of michaelgrinnell.com and dj.michaelgrinnell.com is to establish a robust and professional online presence that not only showcases Michael Grinnell's diverse skills in software development and DJing but also highlights his specialization and passion for audio programming. These platforms are designed to attract potential clients and employers in the fields of audio software development, gaming audio programming, and related industries.

**Target Audience**:

1.Software Development Professionals and Enthusiasts: Specifically, those in the audio and music technology sector, including companies involved in VST plugin development, game development studios, and independent artists or producers seeking custom audio solutions.

2.Music and Entertainment Industry Professionals: Including event organizers, music producers, and artists who might benefit from Michael's DJ services and his expertise in sound design and audio programming.

**Unique Value Proposition**: Michael Grinnell uniquely combines his programming prowess with a deep understanding of sound design and audio technology. This dual expertise enables him to offer specialized services in creating advanced audio software solutions (like VST plugins) and interactive audio for games, alongside providing professional DJ services. This combination of skills sets him apart in the tech and music industries, offering a comprehensive package of programming and sound design.

# Goals

# Considerations:

## Optimized User Experience:

- Ensure a seamless and intuitive user experience with responsive design across various devices.

- Implement light and dark mode for user comfort and preference.

- Minimalist design

## SEO:

Optimize both websites for search engines to increase visibility and reach a broader audience

## Security:

Ensure strong security measures are in place, especially considering the hosting on a personal server.

Your project for creating a portfolio website using WordPress as a Headless CMS and React/Next JS with Bootstrap sounds ambitious and well-thought-out. Let's break down your goals and additional features to provide a clearer roadmap for your project.

# Goals

## Demonstrate Web Design/Development Skills:

- Use modern web design principles.

- Showcase responsive design, ensuring the site works seamlessly on various devices.

- Implement clean, maintainable code, demonstrating best practices in development.

## Showcase Programming and Technical Projects:

- Create a dedicated section for your projects.

- Include detailed descriptions, images, and links to live projects or code repositories.

- Consider adding case studies or blogs detailing your approach and challenges faced in some key projects.

## Advertise Freelance Development Services:

- Create a section outlining your services.

- Include testimonials from past clients, if available.

- Provide a clear call-to-action for potential clients to contact you.

Skill Improvement in React JS, WordPress, and Web Hosting:

- Use this project as an opportunity to explore advanced React features.

- Experiment with WordPress as a Headless CMS, learning to manage and retrieve content via APIs.

- Understand the nuances of web hosting using your home server.

# Additional Objectives

## Home Server for Hosting:

- Configure your home server for web hosting.

- Ensure you have a reliable internet connection and consider uptime, security, and maintenance aspects.

## Secondary Site for DJ Services (dj.michaelgrinnell.com):

- Utilize the same backend and styling for brand consistency.

- Ensure both sites are interlinked for seamless navigation.

- The DJ site should focus on your music, gigs, mixes, and production work.

# Additional Features

## Animated Background on the Homepage:

- Implement a subtle, performance-optimized animation that doesn’t distract from the content.

## Dark/Light Mode Detection and Setting:

- Use CSS and React context for managing theme.

- Detect user’s system preferences for initial theme setting.

## Filtering Mechanism for Projects and Blog Posts:

- Implement filters to allow users to search by tag, category, date, etc.

- Ensure the filtering UI is intuitive and integrates well with the overall design of the site.

# Technical Considerations

## Performance and Optimization:

- Keep an eye on the website's performance, especially with features like animated backgrounds. Use tools like Google Lighthouse for performance insights.

- Optimize images and assets to ensure fast loading times.

## SEO and Analytics:

- Implement SEO best practices to improve the visibility of your site.

- Integrate analytics to track visitor behavior and gain insights.

Responsive Design:

- Thoroughly test the website on various devices and screen sizes.

- Use Bootstrap's responsive design features to your advantage.

Security:

- If hosting on your home server, ensure robust security measures are in place.

- Regularly update your CMS and frameworks to their latest versions to avoid vulnerabilities.

## Cross-Linking Between Sites:

- Make sure the link to your DJ site is prominent on your main site and vice versa.

- Use this as an opportunity to showcase the diversity of your skills and interests.

## Content Management:

- Regularly update your portfolio with new projects and blog posts to keep the content fresh and relevant.

Use WordPress as a headless CMS to efficiently manage and update content across both sites.

User Experience (UX):

- Focus on creating a user-friendly interface, with easy navigation and clear calls-to-action.

- Pay attention to details like load times, mobile responsiveness, and accessibility.

# Website Structure

## Main Domain: michaelgrinnell.com

### 1. Home Page

* Introduction and overview of services.
* Navigation to Portfolio, Blog, About, Contact, and DJ site

### 2. Portfolio Section

* Overview of Michael's projects and skills
* Filterable portfolio gallery (Web Development, C++, Hardware Projects, etc.)
* Individual project details upon selection

### 3. Blog Section

* Articles, tutorials (e.g., home server setup)
* Subscription option

### 4. Services Page

* Information on freelance services offered
* Contact form for service inquiries

### 5. About Page

* Professional bio and background
* Skills and expertise showcase

### 6. Contact Page

* Contact form
* Professional contact details and social media links

## Subdomain: dj.michaelgrinnell.com

### 1. DJ Home Page

* Introduction to DJ persona
* Overview of DJ services and navigation to mixes, produced songs, and booking

### 2. Mixes and Songs

* Gallery of DJ mixes and produced tracks
* Options to listen, download, or share

### 3. DJ Services

* Types of events catered to
* Booking information

### 4. DJ Contact Page

* Booking inquiry form
* Links to DJ focused social media and music platforms

## UI Design

### Light colour scheme

* **Primary colour**: Muted Blue/Teal
* **Secondary colours**: Light Grey, Pastel Blue
* **Background colour**: White or Light Grey

### Dark Colour Scheme

* **Primary colour**: Muted Blue/Teal
* **Secondary colours**: Light Grey, Pastel Blue
* **Background colour**: White or Light Grey

### Typography

* **Main Font**: Roboto or Open Sans
* **Headings Font**: Same as main or a complementary font
* **Font Sizes**: Readable body text with varied sizes for headings

### Layout and Spacing

* Generous use of whitespace
* Grid layout for content organization
* Consistent margins and padding

### User Interface Elements

* **Navigation Bar**: Simple and clear
* **Buttons**: Flat design with hover effect
* **Icons**: Line based, minimalistic

# User Experience Considerations

* Intuitive navigation with a clear hierarchy
* Responsive design for a seamless experience across devices
* Touch friendly interface elements
* Translation to multiple languages

# Technical Considerations

* **Backend**: WordPress as a headless CMS for content management
* **Frontend**: React for dynamic content rendering
* **Styling**: Twitter Bootstrap Framework
* **API Integration**: WordPress REST API for content fetching
* **SEO Optimization**: Implementation of best SEO practices
* **Security**: Ensure robust security measures for both the main domain and subdomain

# Additional Features

* **Blog Subscription**: Email subscription option for blog updates
* **Portfolio Filters**: JavaScript based dynamic filtering
* **Contact Forms**: For professional inquiries and DJ bookings
* **Dark/Light Mode** Detection and Adaptation

# Testing and Deployment

* Cross browser and device testing
* Performance optimization (load times, image optimization)
* Deployment on a suitable hosting platform

# Maintenance Plan

* Regular content updates via WordPress
* Periodic checks for security updates and performance optimization
* Link with GitHub for ease of deployments

# Appendices

* Wireframes: Detailed wireframes for each page
* Project Timeline: Key milestones and deadlines
* Contact Information: Team members or points of contact

# Implementation Plan

1. Create design document, always update this throughout the project.
2. Create Trello board and add high level tasks, keep this updated
3. Set up repository
4. Set up local WordPress instance
5. Investigate what is needed to use WordPress as a headless CMS.
6. Create static UI templates using html, css and bootstrap for pages and UI elements such as navs and buttons.
7. Create sample custom posts or endpoints, fill with dummy content data
8. Create a postman collection for endpoints
9. Retrieve data from endpoint and display it on front end as static text
10. Start building react application with static data
11. Connect react application to live data from endpoints
12. Create and upload content for website
13. Apply any updates
14. Test
15. Go live
16. Maintenance and updates