

TheSearchPilot - SEO Performance Analyzer

Project Title: TheSearchPilot SEO Performance Analyzer

Purpose

To provide website owners, influencers, content creators, and digital marketers with **data-driven SEO analysis and actionable suggestions** that help their web presence **rank better in search engines like Google**.

The platform aims to:

- Help **influencers** and **creators** make their personal sites or landing pages SEO-friendly.
- Serve **eCommerce** or **dropshipping** users with tools to analyze product pages.
- Potentially become a one-stop portal for **ad campaign optimization** across social/search platforms.

Initial Vision (Core Idea)

The original idea evolved from building a **hybrid portal** where:

- **Influencers** or **content creators** could submit their webpages or campaign links,
- Get **SEO scores**, **user experience insights**, and **optimization suggestions**,
- Use these insights to improve **discoverability**, **click-through**, and **conversion** on their profiles or products.

Future versions may offer:

- Integration with Instagram, TikTok, YouTube bios/landing pages.
- Suggestions tailored to creator profiles (e.g., Shopify landing page vs. personal blog vs. link-in-bio tools).

MVP Scope

Functional Requirements

1. User Dashboard

- Input for a webpage URL.
- Analyze button triggers backend API.
- Toggle between Mobile/Desktop SEO view.

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2. SEO Results Viewer (SeoReport.jsx)

- **Field Metrics** (Real-world performance):
 - CLS, TTFB, FCP (percentiles).
- **Lab Metrics** (Simulated tests from Google Lighthouse):
 - Performance, SEO, Accessibility, Best Practices.
 - Key render timings: FCP, LCP.
- **Recommendations**:
 - Structured audit-based advice for better SEO and user experience.

Technical Setup

Frontend

- **Tech:** React + Vite
- **UI:** Tailwind CSS
- **Core Component:** `SeoReport.jsx`
- **Planned UI Additions:** Authentication form, user profile/dashboard, historical scan results.

Backend

- **Server:** Express.js
- **SEO API Proxy Endpoint:** `/api/seo-check`
- **3rd Party API:** Google PageSpeed Insights
- **Security:** `.env` for API key, server-side calls only

API Integration

- **Google PageSpeed Insights**
 - Key passed via environment variable.
 - Response broken down into:
 - `loadingExperience.metrics`
 - `lighthouseResult.categories`
 - `lighthouseResult.audits`

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Repository & Dev Environment

- **GitHub** **Repo:**
[thesearchpilot-dashboard-first](https://github.com/pranaymahulikar/thesearchpilot-dashboard-first)
- **Dev Environment:** GitHub Codespaces (shared setup)
- **Run Scripts:**
 - Frontend: `npm run dev`
 - Backend: `npm run server`

Future Plans

- OAuth Authentication (Google/Facebook planned)
- Custom onboarding for influencers (profile type selector)
- Personalized SEO checklist based on creator goals (e.g. link-in-bio, product showcase)
- Save and compare multiple scans
- Multi-page site crawling (for blogs or Shopify stores)
- White-label reports or shareable dashboards