

# Search



# Historical Search Tools

Yahoo Search Index

Human edited

Early search engines

Excite, Alta Vista, Lycos, etc.



The screenshot shows the classic Yahoo! homepage layout. At the top, there are several icons for 'New', 'Cool', 'Today's News', and 'More Yahoos'. The 'YAHOO!' logo is prominently displayed in red. Below the logo, there are several promotional banners: '1998 Winter Games' with a link to 'results, schedules, news', 'MegaMarketing' with 'BENEFITS EXPOSED!', and 'Academy Award Nominations'. A search bar is located in the center, with a 'Search' button and a link to 'options'. Below the search bar, there is a section for 'Yahoo! Chat' featuring Wall Street guru Jim Cramer and supermodel Frederique. A horizontal menu lists various services: Yellow Pages, People Search, Maps, Classifieds, Personals, Chat, Free Email, Shopping, My Yahoo!, News, Sports, Weather, Stock Quotes, and more. The main content area is organized into a grid of category links, each with a sub-menu: Arts and Humanities (Architecture, Photography, Literature...), Business and Economy [Xtra!] (Companies, Finance, Employment...), Computers and Internet [Xtra!] (Internet, WWW, Software, Multimedia...), Education (Universities, K-12, College Entrance...), Entertainment [Xtra!] (Cool Links, Movies, Music, Humor...), Government (Military, Politics [Xtra!], Law, Taxes...), Health [Xtra!] (Medicine, Drugs, Diseases, Fitness...), News and Media [Xtra!] (Current Events, Magazines, TV, Newspapers...), Recreation and Sports [Xtra!] (Sports, Games, Travel, Autos, Outdoors...), Reference (Libraries, Dictionaries, Phone Numbers...), Regional (Countries, Regions, U.S. States...), Science (CS, Biology, Astronomy, Engineering...), Social Science (Anthropology, Sociology, Economics...), and Society and Culture (People, Environment, Religion...). At the bottom, there are links for 'What's New', 'Weekly Picks', 'Today's Web Events', 'Yahoo! Internet Life', 'Yahooligans! for Kids', 'Visa Shopping Guide', 'Yahoo! Style', and '3D Stock Viewer'. A 'World Yahoos' section lists regional sites for Australia & NZ, Canada, Denmark, France, Germany, Japan, Korea, Norway, SE Asia, Sweden, UK & Ireland. A 'Yahoo! Metros' section lists local sites for Atlanta, Austin, Boston, Chicago, Dallas / Fort Worth, Los Angeles, Miami, Minneapolis / St. Paul, New York, S.F. Bay, Seattle, and Wash D.C. There is also a link for 'Smart Shopping with'. At the very bottom, there are links for 'How to Suggest a Site', 'Company Info', 'Openings at Yahoo!', 'Contributors', and 'Yahoo! How-To'.



# Modern Search Engines

Google

- My sites - 90%+ google

Bing - less than 10%

Yahoo - Same as bing?

Duck Duck Go - Privacy concerns



# Modern Search Engines

Pages visited by crawler (spider, bot)

Crawler

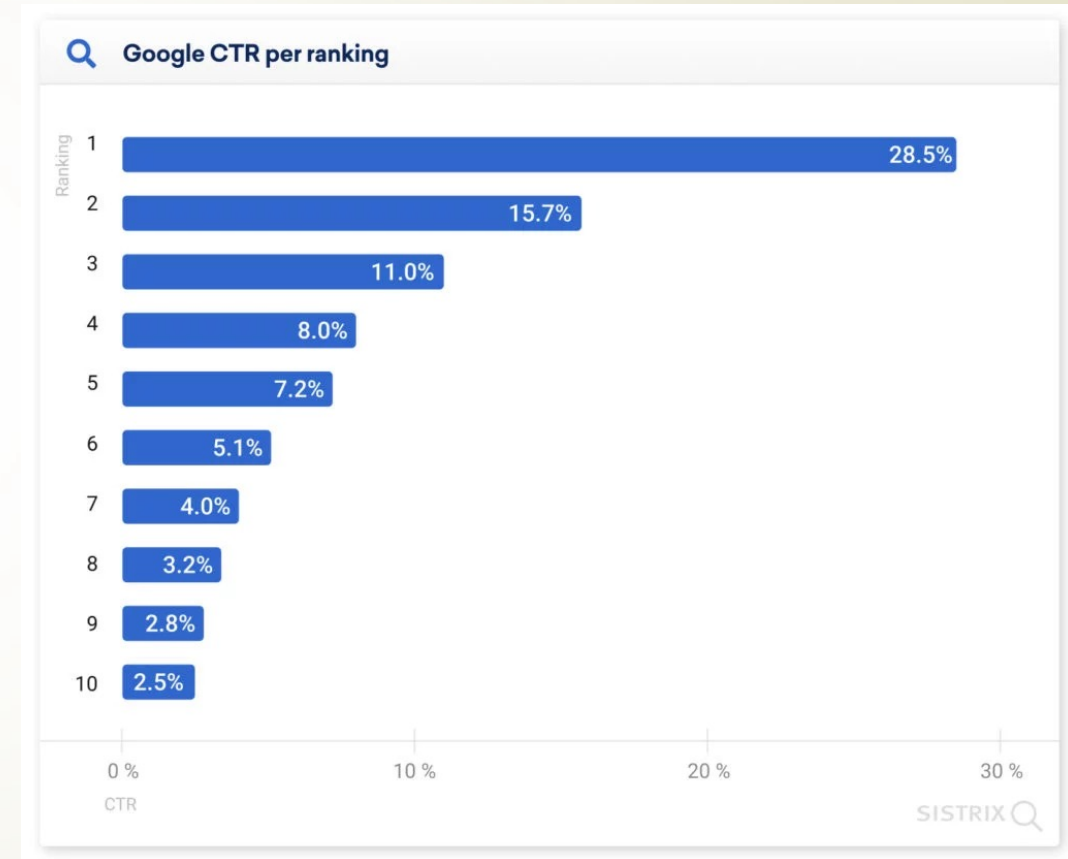
- Browses the web
- Indexes content for analysis

Search algorithm applied to data that the crawler collects in response to search queries



# Why is Search Important?

- Click through by rank position
- More than half of all clicks occur on top three search results



# How Google Works

- Proprietary
- Changes all the time in response to gaming
- **Page Rank**
- Links to your site from other sites (Backlinks)
- Backlinks from pages with high page rank help your page rank more.



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# Other Ranking Factors

- Quality of content
  - Original
  - Unique
  - Updated
  - Evaluated by AI – Rankbrain
- Keywords in <title> tags
- Mobile friendliness (mobile searches only)
- <https://search.google.com/test/mobile-friendly>



<https://backlinko.com/google-ranking-factors>



# Still More Factors...

- Page Speed (separate lecture)
- Site security (SSL)
- Keywords in URL
- Keywords in heading tags
- Possibly Social Media signals
- Domain factors (age, keyword in domain, history)
- Full list of 200 – see link



<https://backlinko.com/google-ranking-factors>





# Google Search Personalization

- Apparently enabled by default
- Search history (based on signed in account, Web History on)
- Search history (not signed in, based on cookie in browser)
- Geographical location (based on IP address)



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# Display of Results

- Query > Search Engine Results page (SERP)
- Examples

The screenshot shows a Google search for "gold hill inn". The search bar is at the top with the Google logo on the left and search controls on the right. Below the search bar are tabs for Maps, Images, Menu, Reviews, Reservations, Menu prices, Restaurant, Shopping, and Schedule. The search results show "About 70,400,000 results (0.39 seconds)".

Under "Your related activity", there are two items: "Gold Hill Inn" and "A-Lodge Boulder (Boulder Adventure Lodge) \$1". A blue circle highlights the "A-Lodge Boulder" item, and a "View all" link is below it.

The main search result is for "goldhillinn.com" with the URL "https://www.goldhillinn.com". The title is "Gold Hill Inn | Historic Colorado Restaurant & Music Venue". The description says: "Historic restaurant in mountains near Boulder, Colorado features gourmet dining, outdoor beer garden and live Americana, bluegrass and roots music."

There are four sub-sections:

- Live Music Venue**: Mountain Music Venue - Live Americana, Bluegrass, Folk ...
- Fine Dining**: Entrees · Tourmedos with Hunter sauce · Roast Pork loin with ...
- Contact**: Contact information for the Gold Hill Inn and Bluebird Lodge.
- Beer Garden**: Gold Hill Inn's Beer Garden features barbecue, drinks and ...

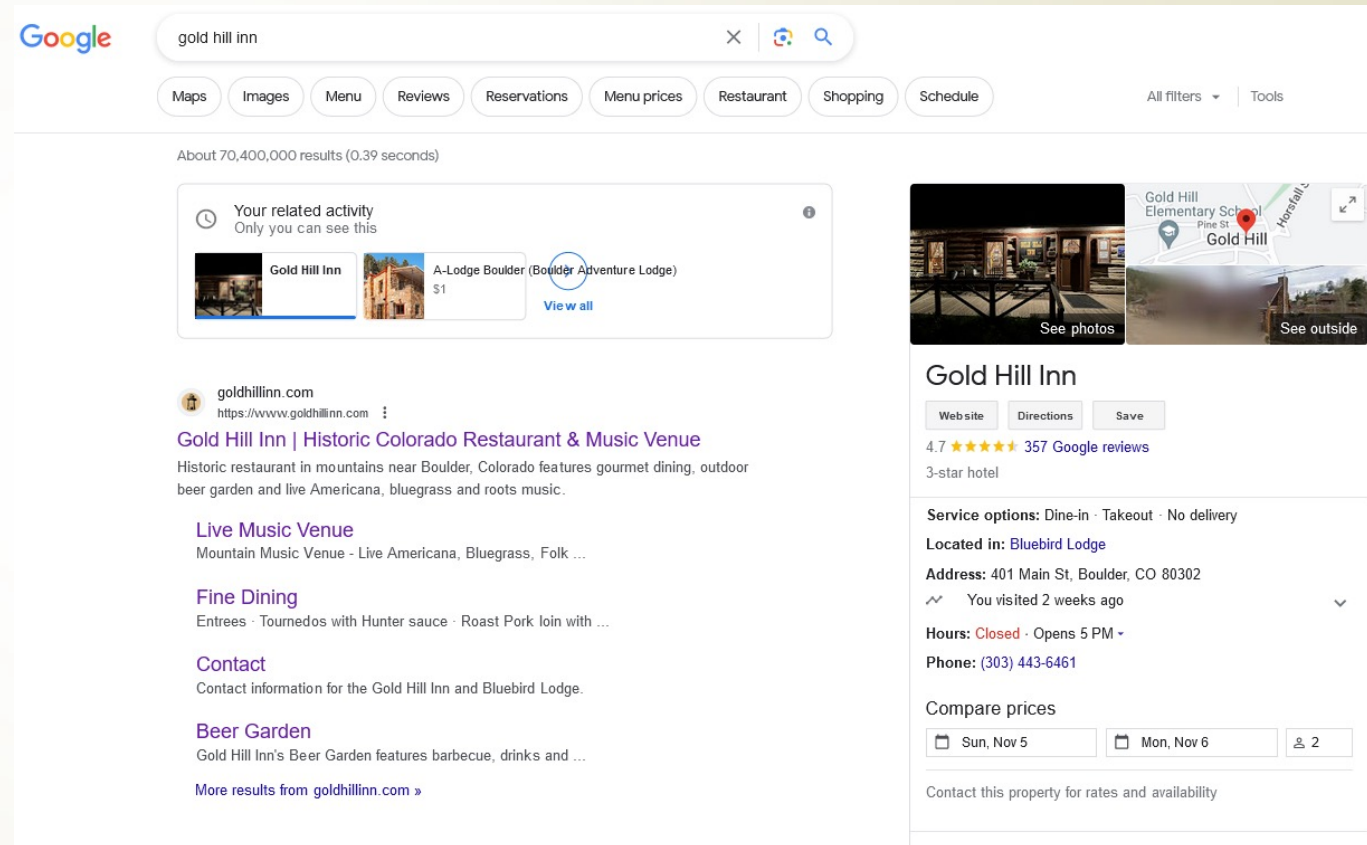
A link "More results from goldhillinn.com »" is at the bottom of these sections.

On the right side, there is a "Gold Hill Inn" card. It includes a "Website" button, "Directions" button, and "Save" button. It shows a 4.7 star rating from 357 Google reviews and is a 3-star hotel. Service options are "Dine-in · Takeout · No delivery". It is located in "Bluebird Lodge" at "Address: 401 Main St, Boulder, CO 80302". It notes "You visited 2 weeks ago". Hours are "Closed · Opens 5 PM". Phone is "(303) 443-6461". There is a "Compare prices" section with a calendar for "Sun, Nov 5" and "Mon, Nov 6" and a "2" icon. At the bottom, it says "Contact this property for rates and availability".



# Expanded Listings (Sitelinks)

- Automated
- Again Gold Hill
- Where do subheaders come from?
- Possible factors
  - High ranking for keywords
  - High traffic
  - High click through rates
  - Unique titles/meta description



The screenshot shows a Google search for "gold hill inn". The search bar is at the top with the Google logo on the left and search controls on the right. Below the search bar are tabs for Maps, Images, Menu, Reviews, Reservations, Menu prices, Restaurant, Shopping, and Schedule. The search results show "About 70,400,000 results (0.39 seconds)".

Under "Your related activity", there are three items: "Gold Hill Inn", "A-Lodge Boulder (Boulder Adventure Lodge)", and "Adventure Lodge". A "View all" link is present.

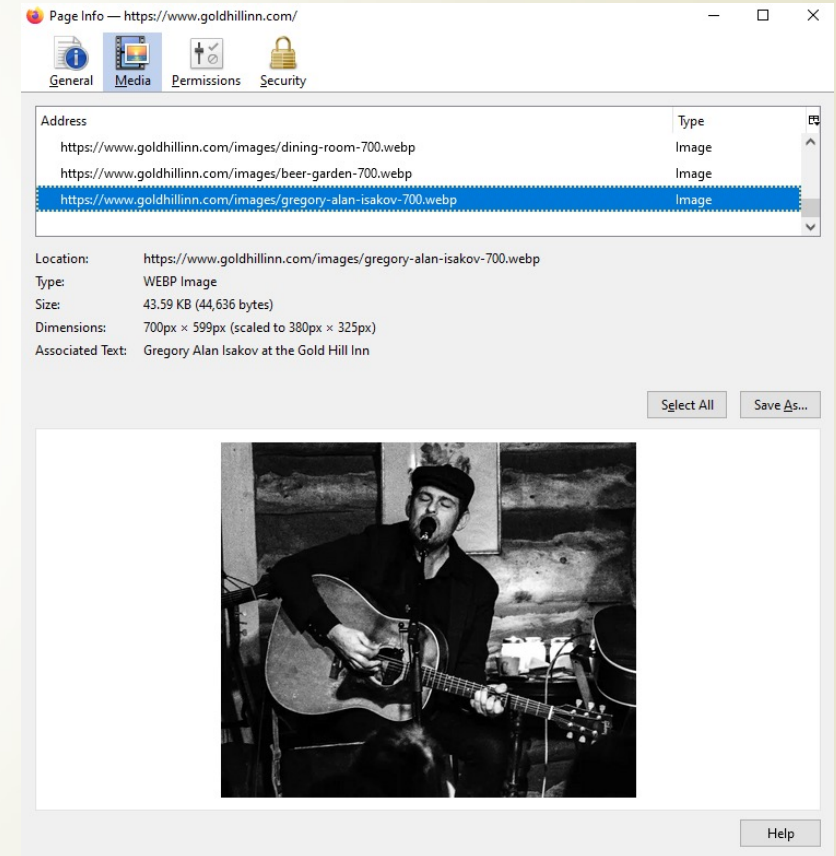
The main listing for "goldhillinn.com" is titled "Gold Hill Inn | Historic Colorado Restaurant & Music Venue". The description reads: "Historic restaurant in mountains near Boulder, Colorado features gourmet dining, outdoor beer garden and live Americana, bluegrass and roots music." Below the title are several sitelinks: "Live Music Venue", "Fine Dining", "Contact", and "Beer Garden".

On the right side, there is a detailed listing for "Gold Hill Inn" with a 4.7-star rating from 357 reviews. It includes a "See photos" button, a "See outside" button, and a map. The listing also shows service options (Dine-in, Takeout, No delivery), location (Bluebird Lodge), address (401 Main St, Boulder, CO 80302), hours (Closed, Opens 5 PM), and phone number (303) 443-6461. There are also buttons for "Website", "Directions", and "Save".



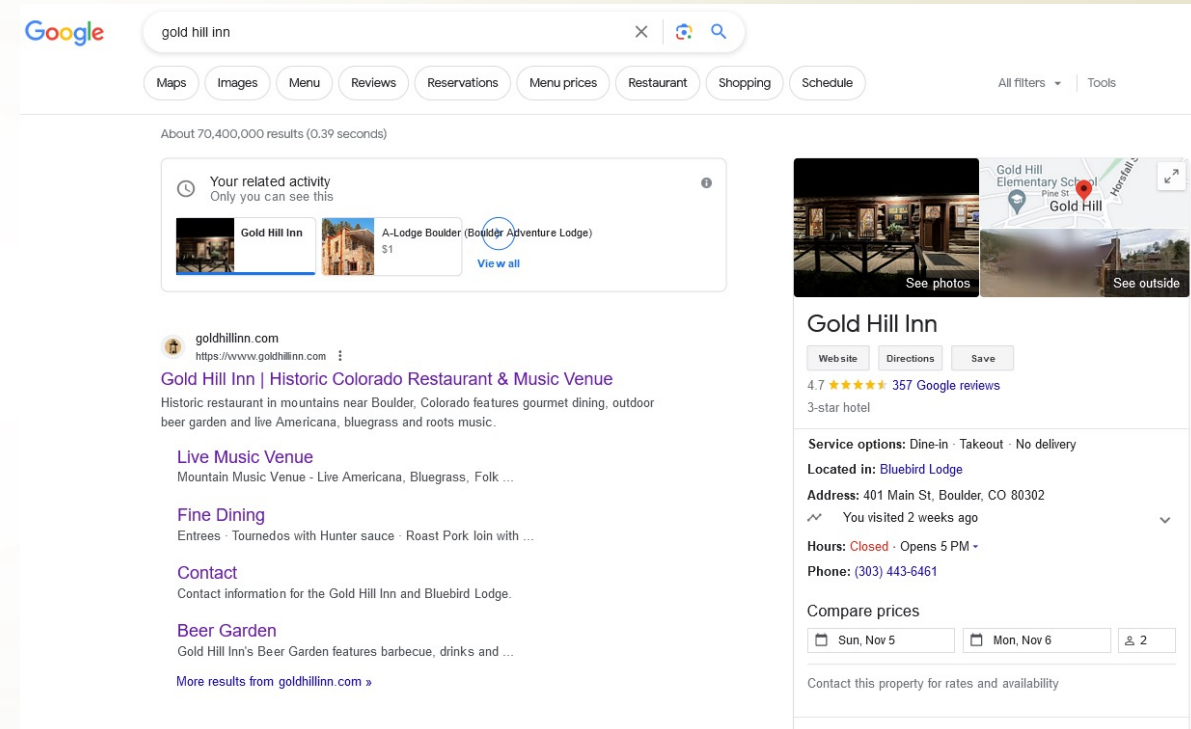
# Image Alt Text Guidelines

- Ctrl-I > Media: Properties bar for images (Firefox only)
- English words!
- Sentence case!
- Repeat text in images
- Short, relevant, meaningful
- Use keywords
- No alt text for purely decorative images



# Document Title Guidelines

- Short, Unique and relevant page titles
- Page description | Section name | Site or company name
- Or Site or company name | Section name | Page description
- Google limit 64 characters (physical limit)
- Omit articles in favor of separators. Make all words count
- Does google sometimes edit this? Example: Music page



The screenshot shows a Google search for "gold hill inn". The search bar is at the top with the Google logo on the left and search controls on the right. Below the search bar are tabs for Maps, Images, Menu, Reviews, Reservations, Menu prices, Restaurant, Shopping, and Schedule. The search results show "About 70,400,000 results (0.39 seconds)". A "Your related activity" section is visible, showing "Gold Hill Inn" and "A-Lodge Boulder (Boulder Adventure Lodge)". The main result is for "Gold Hill Inn" from goldhillinn.com, with the URL https://www.goldhillinn.com. The title is "Gold Hill Inn | Historic Colorado Restaurant & Music Venue". The description is "Historic restaurant in mountains near Boulder, Colorado features gourmet dining, outdoor beer garden and live Americana, bluegrass and roots music." There are sections for "Live Music Venue", "Fine Dining", "Contact", and "Beer Garden". On the right, there is a detailed view of the Gold Hill Inn, including a map, photos, and a "See outside" button. The detailed view shows the "Gold Hill Inn" with a 4.7 star rating and 357 Google reviews. It is a 3-star hotel. Service options include Dine-in, Takeout, and No delivery. It is located in Bluebird Lodge. The address is 401 Main St, Boulder, CO 80302. The hours are Closed - Opens 5 PM. The phone number is (303) 443-6461. There is a "Compare prices" section with a calendar showing Sun, Nov 5 and Mon, Nov 6. A "Contact this property for rates and availability" button is at the bottom.



# Strategies

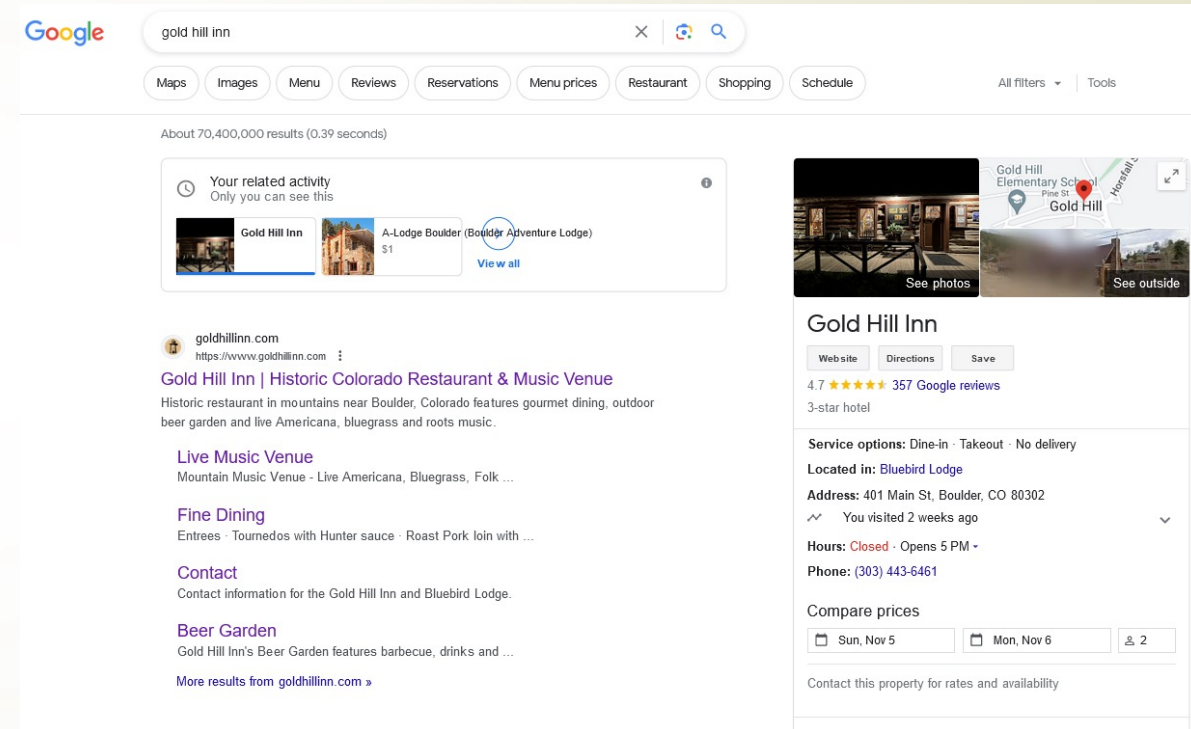
- Write good content, keep it fresh
- Need incoming links
- Good content brings incoming links
- Social media brings incoming links, may be a ranking signal (not clear)
- May take a long time
- Use headings appropriately (text in headings)
- Text where possible (Avoid text in images)

The image shows a Google search for "gold hill inn". The search results page includes a "Your related activity" section with a "View all" link. The main search result is for "Gold Hill Inn | Historic Colorado Restaurant & Music Venue", which is a 3-star hotel with 4.7 stars and 357 Google reviews. The listing provides details such as the address (401 Main St, Boulder, CO 80302), phone number ((303) 443-6461), and service options (Dine-in, Takeout, No delivery). There are also buttons for "Website", "Directions", and "Save".



# More Strategies

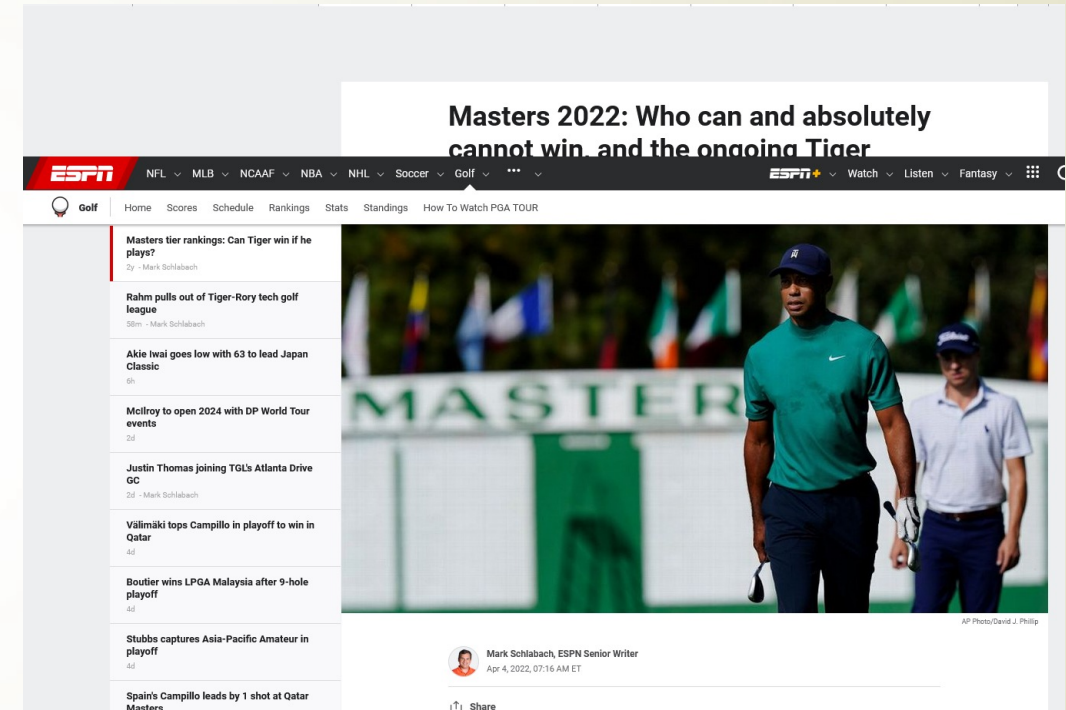
- Alt text on all images (per guidelines)
- Good document titles
- Keywords (and variations) text somewhere (e.g., running shorts, attire)
- Keywords in titles, headings (especially h1) and alt text may get extra emphasis
- Make your pages lean and fast
- Optimize for mobile





# More Strategies File/Directory Names

- Keywords in filenames, separated by dashes—URL is displayed in Google results
- Example: ESPN Tiger Woods
- [https://www.espn.com/golf/story/\\_/id/33629573/masters-2022-absolutely-cannot-win-ongoing-tiger-woods-question](https://www.espn.com/golf/story/_/id/33629573/masters-2022-absolutely-cannot-win-ongoing-tiger-woods-question)



# Writing Copy

- Primary and secondary keywords
- Primary keywords (1 or 2) are in page title, h1, early in content (first 100 words)
- Make sure secondary keywords are in copy
- Use keywords in links where possible
- Grammar/spelling/appropriate language?
- Generally, what works for google is good for search results in other search engines



# Meta Tags

- Meta keywords tag generally not considered any more
- Meta description tag may be displayed for google search results
- Affects clickthrough! High clickthrough may help ranking
- example [goldhillinn.com](http://goldhillinn.com)



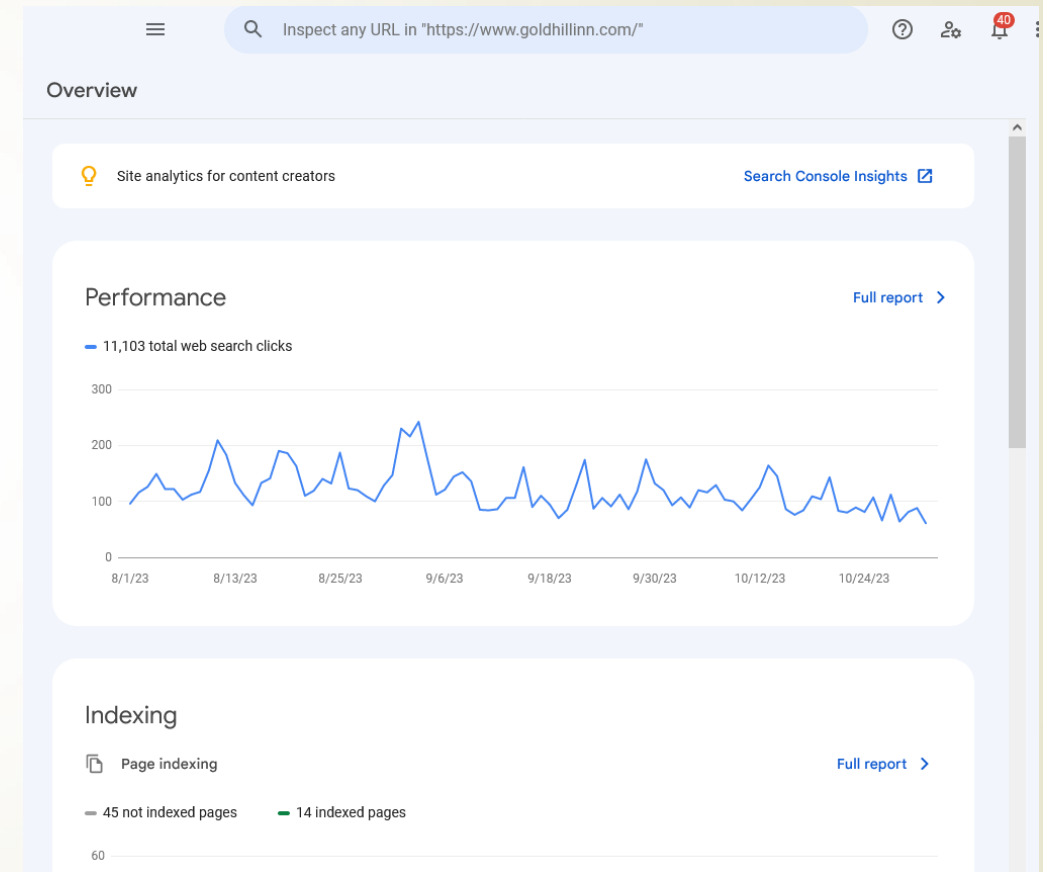
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# Metrics

- Google Search Console
- View Performance tab
  - Impressions, clicks, CTR, position
- Links
  - External, linking sites
- Search Console Insights



# Effect of AI

- Will AI kill search engines and/or search engine optimization?

