```
crossorigin="anonymous" media="all" rel="stylesheet" href="https://github.githubassets.com/assets/primer-e11b50dc0d94.css" />
<link crossorigin="anonymous" media="all" rel="stylesheet" href="https://github.githubassets.com/assets/global-9ebbc23a0518.css" />
crossorigin="anonymous" media="all" rel="stylesheet" href="https://github.githubassets.com/assets/github-ce246942b490.css" />
<meta name="hovercard-subject-tag" content="repository:866513204" data-turbo-transient>
\verb|\dashed name="google-site-verification" content="Apib7-x98H0j5cPqHWwSMm6dNU4GmODRoqxLiDzdx9I"> \\ |\dashed name="google-site-verification" content="Apib7-x98H0j5cPqHwwSMm6dNu4GmODRo
<meta name="user-login" content="">
<meta name="viewport" content="width=device-width">
   <meta name="description" content="&quot;LightRAG: Simple and Fast Retrieval-Augmented Generation&quot; - LightRAG/README.md at mai</pre>
   <link rel="search" type="application/opensearchdescription+xml" href="/opensearch.xml" title="GitHub">
<link rel="fluid-icon" href="https://github.com/fluidicon.png" title="GitHub">
<meta property="fb:app_id" content="1401488693436528">
<meta name="apple-itunes-app" content="app-id=1477376905, app-argument=https://github.com/HKUDS/LightRAG/blob/main/README.md" />
   <meta name="twitter:image" content="https://opengraph.githubassets.com/446cdbdlcfb0d259835e1e8df35be2b2b309fba592606c6dff0facc914ad
   <meta name="hostname" content="github.com">
      <meta name="expected-hostname" content="github.com">
   <meta name="turbo-cache-control" content="no-cache" data-turbo-transient>
<meta data-hydrostats="publish">
<meta name="turbo-body-classes" content="logged-out env-production page-responsive">
<div class="position-relative header-wrapper js-header-wrapper ">
   <a href="#start-of-content" data-skip-target-assigned="false" class="px-2 py-4 color-bg-accent-emphasis color-fg-on-emphasis show-
   <span data-view-component="true" class="progress-pjax-loader Progress position-fixed width-full">
<span style="width: 0%;" data-view-component="true" class="Progress-item progress-pjax-loader-bar left-0 top-0 color-bg-accent-empha</pre>
                                  <react-partial partial-name="keyboard-shortcuts-dialog" data-ssr="false" data-attempted-ssr="false" data-react-profiling="false"
```

Navigation Menu

Toggle navigation

```
<a class="mr-lg-3 color-fg-inherit flex-order-2 js-prevent-focus-on-mobile-nav"
href="/"
aria-label="Homepage"
data-analytics-event="{&quot;category&quot;:&quot;Marketing nav&quot;,&quot;action&quot;:&quot;click to go to homepage&quot;,&quot;superson to be a sequence of the sequen
```

```
<template data-target="react-partial-anchor.template">
<link crossorigin="anonymous" media="all" rel="stylesheet" href="https://github.githubassets.com/assets/primer-react.b2a80302b29
```

<re><react-partial partial-name="appearance-settings" data-ssr="false" data-attempted-ssr="false" data-react-profiling="false"</p>

```
</react-partial-anchor>
```



GitHub Copilot
Write better code with AI
(https://github.com/features/copilot)



GitHub Spark New

Build and deploy intelligent apps

(https://github.com/features/spark)
(https://github.com/features/spark)

<1i>>



GitHub Models New

Manage and compare prompts

(https://github.com/features/models)

(https://github.com/features/models)

<1i>>



GitHub Advanced Security
Find and fix vulnerabilities

(https://github.com/security/advanced-security)

(https://github.com/security/advanced-security)

<



Actions

Automate any workflow

(https://github.com/features/actions)

(https://github.com/features/actions)



Codespaces

Instant dev environments

(https://github.com/features/codespaces)

(https://github.com/features/codespaces)

<1i>



Issues

Plan and track work

(https://github.com/features/issues)

(https://github.com/features/issues)

<1i>>



Code Review

Manage code changes

(https://github.com/features/code-review)

(https://github.com/features/code-review)

<1i>



Discussions

Collaborate outside of code

(https://github.com/features/discussions)

(https://github.com/features/discussions)

<1i>



Code Search

Find more, search less

(https://github.com/features/code-search)

(https://github.com/features/code-search)

Why GitHub (https://github.com/why-github)

(https://github.com/why-github)

<1i>

All features (https://github.com/features)

(https://github.com/features)

<

Documentation

(https://docs.github.com)

<

GitHub Skills

<

Blog

(https://github.blog)

</div>
</div>
</div>

class="HeaderMenu-item position-relative flex-wrap flex-justify-between flex-items-center d-block d-lg-flex flex-lg
<button type="button" class="HeaderMenu-link border-0 width-full width-lg-auto px-0 px-lg-2 py-lg-2 no-wrap d-flex flex-items-center
Solutions</pre>

Enterprises (https://github.com/enterprise)

(https://github.com/enterprise)

<

Small and medium teams (https://github.com/team)

(https://github.com/team)

<1i>

Startups (https://github.com/enterprise/startups)

(https://github.com/enterprise/startups)

<1i>>

Nonprofits (/solutions/industry/nonprofits)

(/solutions/industry/nonprofits)

DevSecOps (/solutions/use-case/devsecops)

(/solutions/use-case/devsecops)

<1i>> DevOps (/solutions/use-case/devops) (/solutions/use-case/devops) <1i>> CI/CD (/solutions/use-case/ci-cd) (/solutions/use-case/ci-cd) > View all use cases (/solutions/use-case) (/solutions/use-case) </div> </div> <div class="HeaderMenu-column pl-lg-4 border-lg-left pr-lg-7"> <div class="border-bottom border-lg-bottom-0 pb-3 pb-lg-0"> By industry/span> $\verb| class="list-style-none f5" aria-labelledby="solutions-by-industry-heading"> \\$ Healthcare (/solutions/industry/healthcare) (/solutions/industry/healthcare) <1i>> Financial services (/solutions/industry/financial-services) (/solutions/industry/financial-services) <1i>> Manufacturing (/solutions/industry/manufacturing) (/solutions/industry/manufacturing) <1i>> Government (/solutions/industry/government) (/solutions/industry/government) < View all industries (/solutions/industry) (/solutions/industry) </div> </div> <div class="HeaderMenu-trailing-link rounded-bottom-2 flex-shrink-0 mt-lg-4 px-lg-4 py-lg-3 f5 text-semibold"> View all solutions <svg aria-hidden="true" height="16" viewBox="0 0 16 16" version="1.1" width="16" data-view-component="true" class="octicon</pre>

```
class="HeaderMenu-item position-relative flex-wrap flex-justify-between flex-items-center d-block d-lg-flex flex-lg-
 <button type="button" class="HeaderMenu-link border-0 width-full width-lg-auto px-0 px-lg-2 py-lg-2 no-wrap d-flex flex-items-cent</pre>
    <svg opacity="0.5" aria-hidden="true" height="16" viewBox="0 0 16 16" version="1.1" width="16" data-view-component="true" class=</pre>
<path d="M12.78 5.22a.749.749 0 0 1 0 1.061-4.25 4.25a.749.749 0 0 1-1.06 0L3.22 6.28a.749.749 0 1 1 1.06-1.06L8 8.93913.72-3.719a.7</pre>
 <div class="HeaderMenu-dropdown dropdown-menu rounded m-0 p-0 pt-2 pt-1g-4 position-relative position-1g-absolute left-0 left-1g-n
     <div class="HeaderMenu-column pl-lg-4 px-lg-4 pb-3 pb-lg-0">
          <div class="border-bottom border-lg-bottom-0 pb-3">
                <span class="d-block h4 color-fg-default my-1" id="resources-topics-heading">Topics/
           Al (/resources/articles/ai)
                                                          (/resources/articles/ai)
                <1i>>
                                                     DevOps (/resources/articles/devops)
                                                        (/resources/articles/devops)
                <1i>>
                                                    Security (/resources/articles/security)
                                                        (/resources/articles/security)
                <
                                         Software Development (/resources/articles/software-development)
                                                  (/resources/articles/software-development)
                <1i>>
                                                        View all (/resources/articles)
                                                           (/resources/articles)
           </div>
     <div class="HeaderMenu-column pl-lg-4 border-lg-left pr-lg-7">
          <div class="border-bottom border-lg-bottom-0 border-bottom-0">
               <span class="d-block h4 color-fg-default my-1" id="resources-explore-heading">Explore/span>
           <\!\!\text{ul class="list-style-none f5" aria-labelledby="resources-explore-heading"}\!\!>
               <1i>>
                                                           Learning Pathways
```

(https://resources.github.com/learn/pathways)

<1i>

(https://resources.github.com)

<1i>>

Ebooks & Whitepapers (https://github.com/resources/whitepapers)

(https://github.com/resources/whitepapers)

<1i>

Customer Stories (https://github.com/customer-stories)

(https://github.com/customer-stories)

<1i>>

<u>Partners</u>

<syq aria-hidden="true" height="16" viewBox="0 0 16 16" version="1.1" width="16" data-view-component="true" class="oction oction-1</pre>

(https://partner.github.com)

<1i>>

Executive Insights (https://github.com/solutions/executive-insights)

(https://aithub.com/solutions/executive-insights)

</111> </div> </div>

</div>

class="HeaderMenu-item position-relative flex-wrap flex-justify-between flex-items-center d-block d-lg-flex flex-lg-

 Open Source

<svg opacity="0.5" aria-hidden="true" height="16" viewBox="0 0 16 16" version="1.1" width="16" data-view-component="true" class=</pre> <path d="M12.78 5.22a.749.749 0 0 1 0 1.061-4.25 4.25a.749.749 0 0 1-1.06 0L3.22 6.28a.749.749 0 1 1 1.06-1.06L8 8.93913.72-3.719a.7</pre>

<div class="HeaderMenu-dropdown dropdown-menu rounded m-0 p-0 pt-2 pt-1q-4 position-relative position-1q-absolute left-0 left-1q-n</p> <div class="HeaderMenu-column px-lg-4">

<div class="border-bottom mb-3 mb-1g-3 pb-3">

<

GitHub Sponsors Fund open source developers (/sponsors)

(/sponsors)

```
</div>
</div>
<div class="border-bottom mb-3 mb-lg-3 pb-3">

        <</li>
```

The ReadME Project GitHub community articles (https://github.com/readme)

(https://github.com/readme)

Topics (https://github.com/topics)

(https://github.com/topics)

<

Trending (https://github.com/trending)

(https://github.com/trending)

<1i>

Collections (https://github.com/collections)

(https://github.com/collections)

```
</div>
</div>
</div>
```

class="HeaderMenu-item position-relative flex-wrap flex-justify-between flex-items-center d-block d-lg-flex flex-lg-flux flex-lg-flux type="button" class="HeaderMenu-link border-0 width-full width-lg-auto px-0 px-lg-2 py-lg-2 no-wrap d-flex flex-items-center flex-i

<svg opacity="0.5" aria-hidden="true" height="16" viewBox="0 0 16 16" version="1.1" width="16" data-view-component="true" class=
<path d="M12.78 5.22a.749.749 0 0 1 0 1.061-4.25 4.25a.749.749 0 0 1-1.06 0L3.22 6.28a.749.749 0 1 1 1.06-1.06L8 8.93913.72-3.719a.7</pre>



Enterprise platform

Al-powered developer platform

(/enterprise)

(/enterprise)



GitHub Advanced Security

Enterprise-grade security features

(https://github.com/security/advanced-security)

(https://github.com/security/advanced-security)

<



Copilot for business

Enterprise-grade AI features
(/features/copilot/copilot-business)

(/features/copilot/copilot-business)

<



Premium Support Enterprise-grade 24/7 support

(/premium-support)

(/premium-support)

```
</div>
</div>
```

class="HeaderMenu-item position-relative flex-wrap flex-justify-between flex-items-center d-block d-lg-flex flex-lg<a class="HeaderMenu-link no-underline px-0 px-lg-2 py-3 py-lg-2 d-block d-lg-inline-block" data-analytics-event="{"location&quenterline px-0 px-lg-2 py-3 py-lg-2 d-block d-lg-inline-block" d-lg-inline-block d-lg-inl

<div class="d-flex flex-column flex-lg-row width-full flex-justify-end flex-lg-items-center text-center mt-3 mt-lg-0 text-lg-lef</pre>



<input type="hidden" name="type" class="js-site-search-type-field">

Search code, repositories, users, issues, pull requests...

</div>

<custom-scopes data-target="qbsearch-input.customScopesManager">

Cancel Create saved search

```
<div class="position-relative HeaderMenu-link-wrap d-lg-inline-block">
                         href="/login?return\_to=https\$3A\$2F\$2Fgithub.com\$2FHKUDS\$2FLightRAG\$2Fblob\$2Fmain\$2FREADME.md" in the property of the propert
                          class="HeaderMenu-link HeaderMenu-link--sign-in HeaderMenu-button flex-shrink-0 no-underline d-none d-lg-inline-flex bor
                          style="margin-left: 12px;"
                          data-hydro-click="{"event_type":"authentication.click","payload":{"location_in_page&q
                         data-analytics-event="{"category":"Marketing nav","action":"click to go to homepage&q
                          Sign in
                      </a>
                 </div>
                     <a href="/signup?ref_cta=Sign+up&amp;ref_loc=header+logged+out&amp;ref_page=%2F%3Cuser-name%3E%2F%3Crepo-name%3E%2Fblob%2F
                         class="HeaderMenu-link HeaderMenu-link--sign-up HeaderMenu-button flex-shrink-0 d-flex d-lg-inline-flex no-underline bor
                         data-hydro-click="{"event_type":"authentication.click","payload":{"location_in_page&q
                          data-analytics-event="{"category":"Sign up","action":"click to sign up for account"
                          Sign up
                      </a>
                          <div class="AppHeader-appearanceSettings">
<react-partial-anchor>
    <button data-target="react-partial-anchor.anchor" id="icon-button-8aba5023-c68d-4859-957a-24e3caf16ac6" aria-labelledby="tooltip-1"</pre>
```

<react-partial partial-name="appearance-settings" data-ssr="false" data-attempted-ssr="false" data-react-profiling="false"</pre>

```
</react-partial-anchor>
```

```
<button type="button" class="sr-only js-header-menu-focus-trap d-block d-lg-none">Resetting focus</button>
    </div>
</div></div>
```

<div hidden="hidden" data-view-component="true" class="js-stale-session-flash stale-session-flash flash flash-warn flash-full">

<svg aria-hidden="true" height="16" viewBox="0 0 16 16" version="1.1" width="16" data-view-component="true" class="oction oction
<pre>path d="M6.457 1.047c.659-1.234 2.427-1.234 3.086 016.082 11.378A1.75 1.75 0 0 1 14.082 15H1.918a1.75 1.75 0 0 1-1.543-2.575zm1.763

<button id="icon-button-d5b31608-c0ce-4172-b843-d2515ed96d0c" aria-labelledby="tooltip-51fb054a-2a48-45dd-aafb-f2735763c6c8" type="b</pre>
<path d="M3.72 3.72a.75.75 0 0 1 1.06 0L8 6.9413.22-3.22a.749.749 0 0 1 1.275.326.749.749 0 0 1-.215.734L9.06 813.22 3.22a.749.749 0</pre>

<div id="js-flash-container" class="flash-container" data-turbo-replace>

```
<div class="d-flex flex-nowrap flex-justify-end mb-3 px-3 px-1g-5" style="gap: 1rem;">
  <div class="flex-auto min-width-0 width-fit">
```

HKUDS (/HKUDS) / LightRAG (/HKUDS/LightRAG)

Public

</div>
<div id="repository-details-container" class="flex-shrink-0" data-turbo-replace style="max-width: 70%;">

- QNotifications (/login?return_to=%2FHKUDS%2FLightRAG)
- Fork 2.8k (/login?return_to=%2FHKUDS%2FLightRAG)
- ☆ Star 19.4k (/login?return_to=%2FHKUDS%2FLightRAG)

```
</div>
</div>
<div id="responsive-meta-container" data-turbo-replace>
```

<nav data-pjax="#js-repo-pjax-container" aria-label="Repository" data-view-component="true" class="js-repo-nav js-sidenav-cont</pre>

Code (/HKUDS/LightRAG)

(/HKUDS/LightRAG)

Issues 99 (/HKUDS/LightRAG/issues)

(/HKUDS/LightRAG/issues)

Pull requests 9 (/HKUDS/LightRAG/pulls)

(/HKUDS/LightRAG/pulls)

Discussions (/HKUDS/LightRAG/discussions)

(/HKUDS/LightRAG/discussions)

Actions (/HKUDS/LightRAG/actions)

(/HKUDS/LightRAG/actions)

Projects (/HKUDS/LightRAG/projects)

(/HKUDS/LightRAG/projects)

Security

(/HKUDS/LightRAG/security)

Insights (/HKUDS/LightRAG/pulse)

(/HKUDS/LightRAG/pulse)

<react-app app-name="react-code-view" initial-path="/HKUDS/LightRAG/blob/main/README.md" style="display: block; min-height: calc(100vh - 64px);" data-attempted-ssr="false" data-ssr="false" data-lazy="false" data-lazy="false" data-laternate="false" data-data-router-enabled="false" data-react-profiling="false"</p>

</main>

<footer class="footer pt-8 pb-6 f6 color-fg-muted p-responsive" role="contentinfo" >

Footer



<nav aria-label="Footer"> <h3 class="sr-only" id="sr-footer-heading">Footer navigation</h3> class="mx-2"> <a data-analytics-event="{"category":"Footer","action":"go to Terms","label&quo</p> class="mx-2"> <a data-analytics-event="{"category":"Footer","action":"go to privacy","label&q</p> class="mx-2"> <a data-analytics-event="{"category":"Footer","action":"qo to security","label&</p> class="mx-2"> a data-analytics-event="{"category":"Footer","action":"go to status","label&qu class="mx-2"> <a data-analytics-event="{"category":"Footer","action":";go to docs","label"</pre> class="mx-2"> <a data-analytics-event="{"category":"Footer","action":"qo to contact","label&q</p> class="mx-2" >

Do not share my personal information

</nav>

<ghcc-consent id="ghcc" class="position-fixed bottom-0 left-0" style="z-index: 999999"
 data-locale="en"
 data-initial-cookie-consent-allowed=""
 data-cookie-consent-required="true"
></ghcc-consent>

<template id="site-details-dialog">



<div class="Popover js-hovercard-content position-absolute" style="display: none; outline: none;">

<template id="snippet-clipboard-copy-button">



</div>
<div id="js-global-screen-reader-notice" class="sr-only mt-n1" aria-live="polite" aria-atomic="true" ></div>
<div id="js-global-screen-reader-notice-assertive" class="sr-only mt-n1" aria-live="assertive" aria-atomic="true"></div>