

# AI Reference Checker

*A citation validation tool  
for AI-generated content  
and academic research*

### Model Configurations

#### LLM Configuration

LLM Provider ?  
nvidia ▼

LLM Model Name ?  
meta/llama-3.1-8b-instruct

Temperature ?  
0.00 0.00 1.00

Model endpoint URL ?  
http://10.149.8.33:8000/v1/

#### Embedding Configuration

Embedding Provider ?  
nvidia ▼

Embedding Model Name ?  
nvidia/nv-embedqa-e5-v5

Embedding endpoint URL ?  
http://10.149.8.33:8001/v1/

## Reference Checker

Upload a reference document and enter a citation to check its accuracy.

Enter the citation text ?

Upload reference document ?

Drag and drop file here Browse files  
Limit 200MB per file • TXT, PDF, MD

Check Reference

# How can we ensure these citation statements are accurate by the referenced document?

## Example for citation search

by 11%, 7%, and 22%, respectively ( $P=0.013$ ) compared to those who consumed 1 to 2 cups of coffee per day.<sup>24</sup>

In a meta-analysis of 17 studies involving 233,617 participants, Mo et al (2018) noted an increase in myocardial infarction among males who consumed >3 cups of coffee per day; this effect was not observed in females.<sup>25</sup> Inconsistent findings have also been seen among elderly males and females. A study by van Woudenberg et al (2008) revealed a significant reduction in coronary calcification in elderly (mean age 75 years) females with moderate (3 to 4 cups per day) and high (>4 cups per day) coffee intake compared to those with a daily intake of  $\leq 3$  cups.<sup>26</sup> The investigators speculate that the phytoestrogens in coffee could partly replace estrogen stores in postmenopausal females, leading to a decrease in the incidence of atherosclerosis. This function of phytoestrogens may explain the lack of protective effect of coffee on atherosclerotic calcification in males.<sup>26</sup>

Cornelis et al (2006) shed some light on why these studies commonly reported a dose-dependent J- or U-shaped curve.<sup>27</sup> According to their study, the increased risk of coronary heart disease among boiled (unfiltered) coffee consumers

The genetic associations identified by Cornelis et al<sup>27</sup> were not observed in the large prospective analysis by Zhou and

[24]

[HTML] Long-term coffee consumption, caffeine metabolism genetics, and risk of cardiovascular disease: a prospective analysis of up to 347,077 individuals and 8368 cases

A Zhou, E Hyppönen - The American journal of clinical nutrition, 2019

Background Coffee is one of the most widely consumed stimulants worldwide and is generally considered to be safe or even beneficial for health. However, increased risk of myocardial infarction and hypertension has been suggested for individuals who carry a functional variant at cytochrome P450 1A2 (CYP1A2), which makes...

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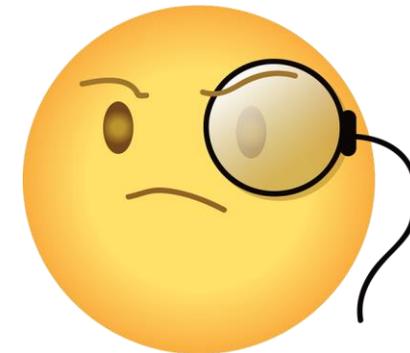
[HTML] sciencedirect.com

See in References

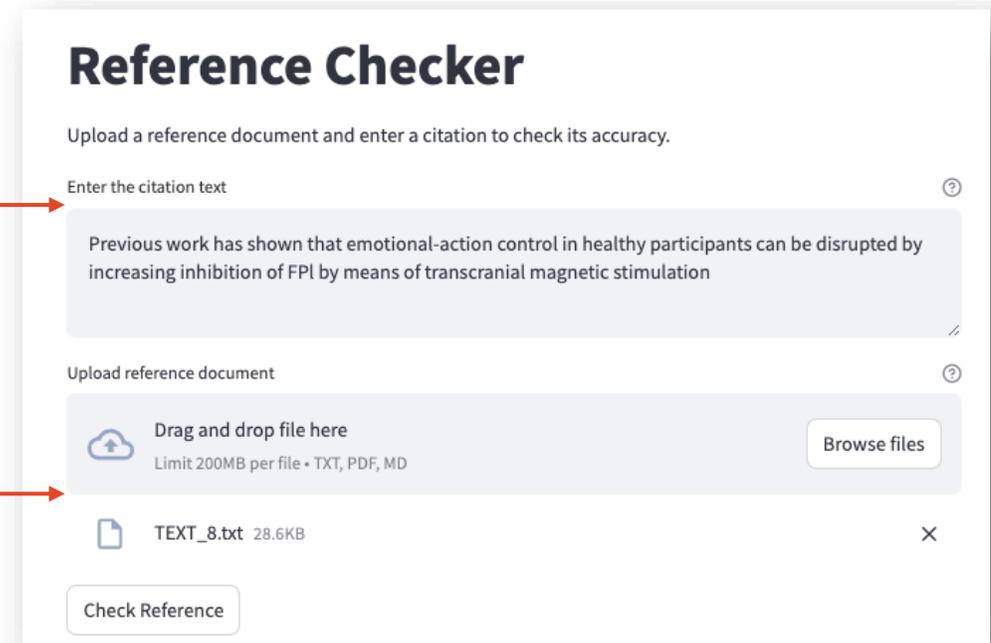
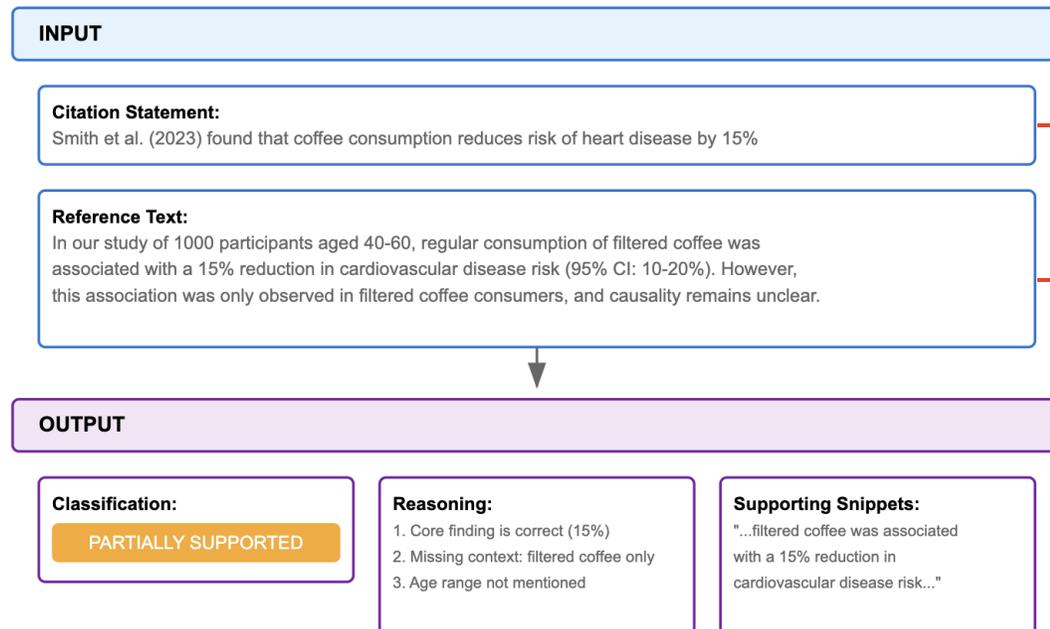
designs of because nption is dies are t of cof- ficially at

ion was found between moderate coffee consumption and cardiovascular disease events in patients who had had a myocardial infarction.<sup>28</sup> After a mean follow-up of 3.5 years, coffee consumption did not change the risk of developing coronary heart disease, stroke, or sudden cardiac death in those

“Fully supported?”  
“What’s missing?”  
“Misrepresentation?”

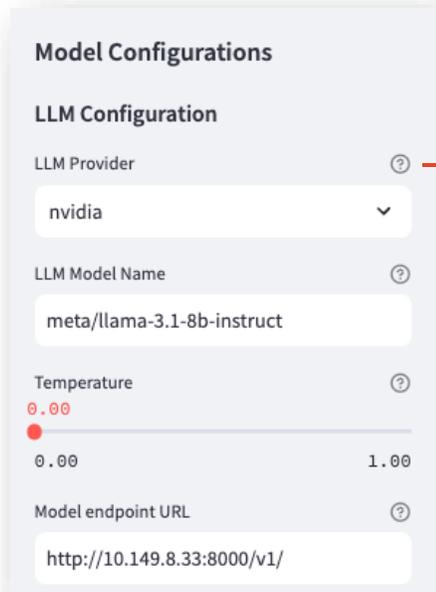


# AI Reference Checker automates citation validation against referenced documents.



*Processes citation statements to verify if the referenced text accurately supports each claim.*

# Leveraging NVIDIA microservices to implement LLMs, document retrieval and ranking.



**Model Configurations**

**LLM Configuration**

LLM Provider

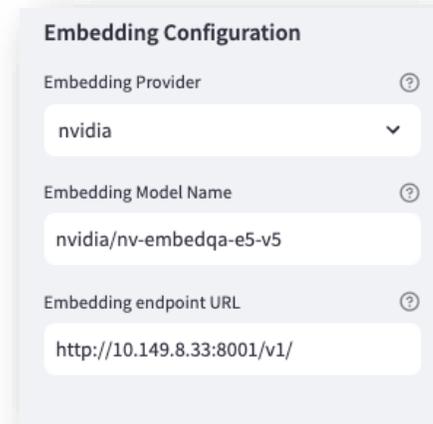
LLM Model Name

Temperature

Model endpoint URL

**Key Feature 1.**  
**LLM Provider Support:**  
Interact with either NVIDIA or OpenAI Language Models.

**Key Feature 3.**  
**Retrieval and Ranking:**  
Use Chroma Vector Store and FlashrankRerank to retrieve and rank document chunks.



**Embedding Configuration**

Embedding Provider

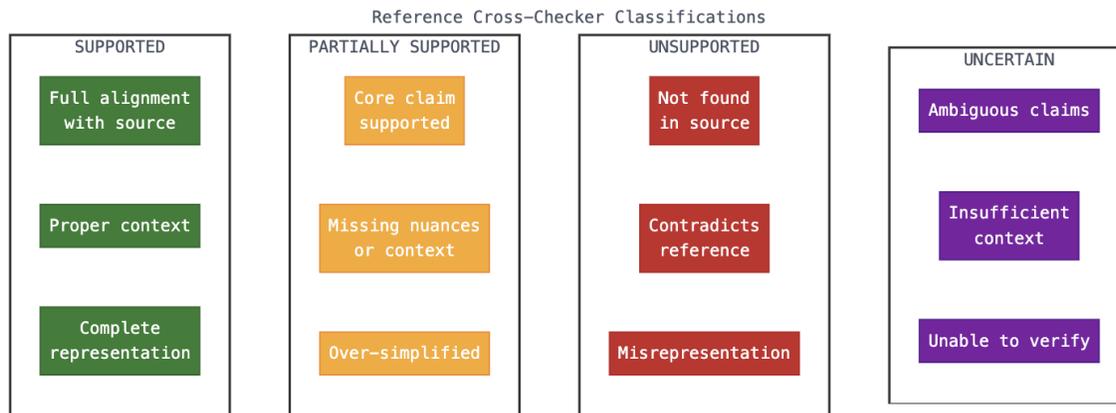
Embedding Model Name

Embedding endpoint URL

**Key Feature 2.**  
**Embeddings:**  
Use NVIDIA or OpenAI embeddings for vectorization.

**Key Feature 4.**  
**Local cluster:**  
Run endpoints in the local environment for confidential data integration.

# The tool classifies citations into four categories, providing reasoning and supporting evidence.



*Output 1.*  
**Classification with Confidence Score:**  
*Supported, Partially Supported,  
Not Supported, and Uncertain*

Enter the citation text

Previous work has shown that emotional-action control in healthy participants can be disrupted by increasing inhibition of FPI by means of transcranial magnetic stimulation

Upload reference document

Drag and drop file here  
Limit 200MB per file • TXT, PDF, MD

TEXT\_8.txt 28.6KB

Check Reference

Analysis complete!

**Classification: PARTIALLY\_SUPPORTED**

Confidence Score: 0.80

**Analysis Details**

**Original Citation:** Previous work has shown that emotional-action control in healthy participants can be disrupted by increasing inhibition of FPI by means of transcranial magnetic stimulation

**Processed Claim:** Emotional-action control in healthy participants can be disrupted by increasing inhibition of FPI by 100% (or a specific percentage) using transcranial magnetic stimulation.

---

# It streamlines citation reviews, saving time and enhancing research accuracy and quality.

## Output 2.

### Reasoning:

Provide explainable reasons for the model classification, such as whether it misses context or is over-simplified.

#### Reasoning

:

**summary:** The citation is partially supported by the reference text chunks, but it lacks specific details about the percentage of inhibition and the exact location of the stimulation.

**details:**

- The reference text chunks mention the use of transcranial magnetic stimulation to study and modulate human cortical excitability [1], which is related to the concept of emotional-action control.
- However, the specific claim about increasing inhibition of FPI by 100% is not directly supported by the provided text chunks.
- The second reference chunk mentions the use of continuous theta burst stimulation (cTBS) to inhibit the left aPFC, which is a different technique and location compared to the citation.

## Output 3.

### Supporting Evidence:

Retrieve the top-2 ranked document chunks with relevant scores.

#### Supporting Evidence

##### Chunk 1

Text: 45. Pascual-Leone, A., Tormos, J.M., Keenan, J., Tarazona, F., Canete, C., and Catala, M.D. (1998). Study and modulation of human cortical excitability with transcranial magnetic stimulation. J. Clin. Neurophysiol. 15,

Relevance Score: 1.00

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##### Chunk 2

Text: been linked to the control of these social emotional behaviors [ 2, 3]. We studied how this control is implemented by inhibiting the left aPFC with continuous theta burst stimulation (cTBS; [ 4]). The behavioral and cerebral consequences

Relevance Score: 1.00

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# Acknowledgement

*This work was completed in part at the **Generative AI Codefest**, Australia, part of the Open Hackathons program. We would like to acknowledge **OpenACC-Standard.org** for their support.*

*We would like to thank the **Australian Government Department of Industry, Science and Resources through the National AI Centre**, and the **National Computational Infrastructure (NCI)** for hosting the Generative AI CodeFest Australia together with **NVIDIA** and **Sustainable Metal Cloud (SMC)**.*

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*Early adopters and interested contributors, please email [sebastian.haan@sydney.edu.au](mailto:sebastian.haan@sydney.edu.au)*

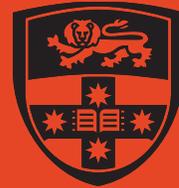
*For more info, including data and fine-tuned model download, see:*

*<https://sydney-informatics-hub.github.io/RefCheckAI/>*



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