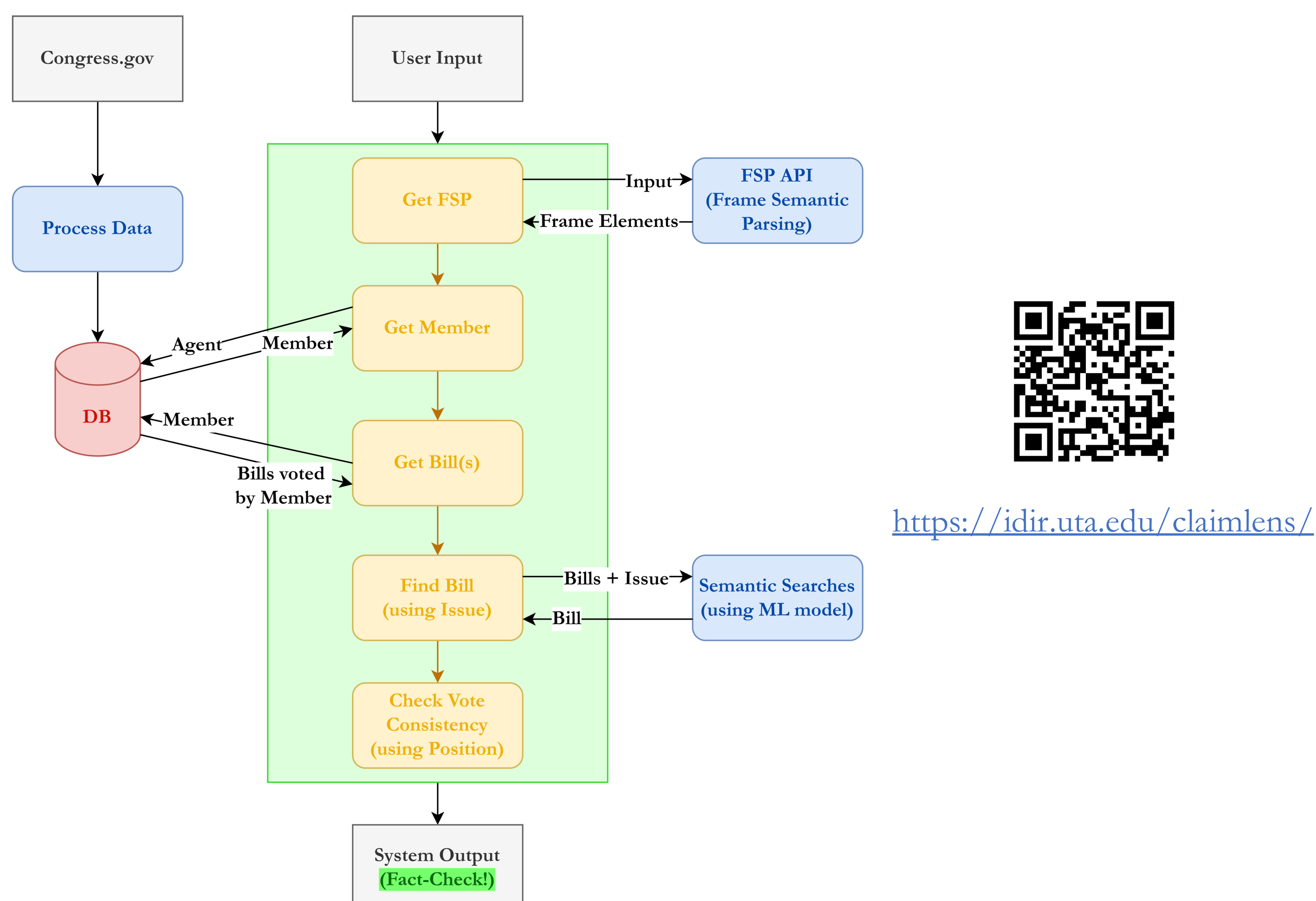


Enabling Automated Fact Checking of Voting Related Claims Using Frame Semantic Parsing and Semantic Search

We introduce ClaimLens, a transparent and automated fact-checking system focused on verifying voting-related factual claims. We use a new approach to fact verification that utilizes frame-semantic parsing to give structured and interpret-able fact-checking and semantic search to find evidence supporting the verification of voting-related claims. By concentrating on claims related to voting, we can leverage publicly accessible voting records from official United States congressional sources and employ frame semantic parsing to extract pertinent information from these claims.

When a user submits a claim, a Frame Semantic Parsing model extracts the voting elements, including the **Agent** who voted, the **Issue** which was voted on, and the **Position** which they took. Using the extracted Agent, we search through our database of over thousands of congress members to find who is being referenced and retrieve the bills which they voted on. Finally, we use semantic-search to find the **bills and votes** most likely referred to by the extracted Issue. We retrieve the **top 10** bills that are most semantically similar to the **Issue** extracted. Finally, to check whether the claim originally submitted is supported or refuted by the evidence retrieved, we use an LLM to get an **Alignment** indicating whether a given bill supports, refutes, is irrelevant or is not sufficient to fact-check the claim.



Marsha Blackburn voted **against** **military pay raise**

Tip: Hover over the highlighted frame elements to view the definition.

• Frame Elements:

- **Agent:** Marsha Blackburn
- **Position:** against
- **Issue:** military pay raise

About Marsha Blackburn



Member ID: B001243

Mary Marsha Blackburn (née Wedgeworth; born June 6, 1952) is an American politician serving as the senior United States senator from Tennessee. Blackburn was first elected to the Senate in 2018.

[More info](#)

Bill Title: 114 HR 2685

Bill Summary: Department of Defense Appropriations Act, 2016 Provides FY2016 appropriations to the Department of Defense (DOD) for military activities. Excludes military construction, military family housing...

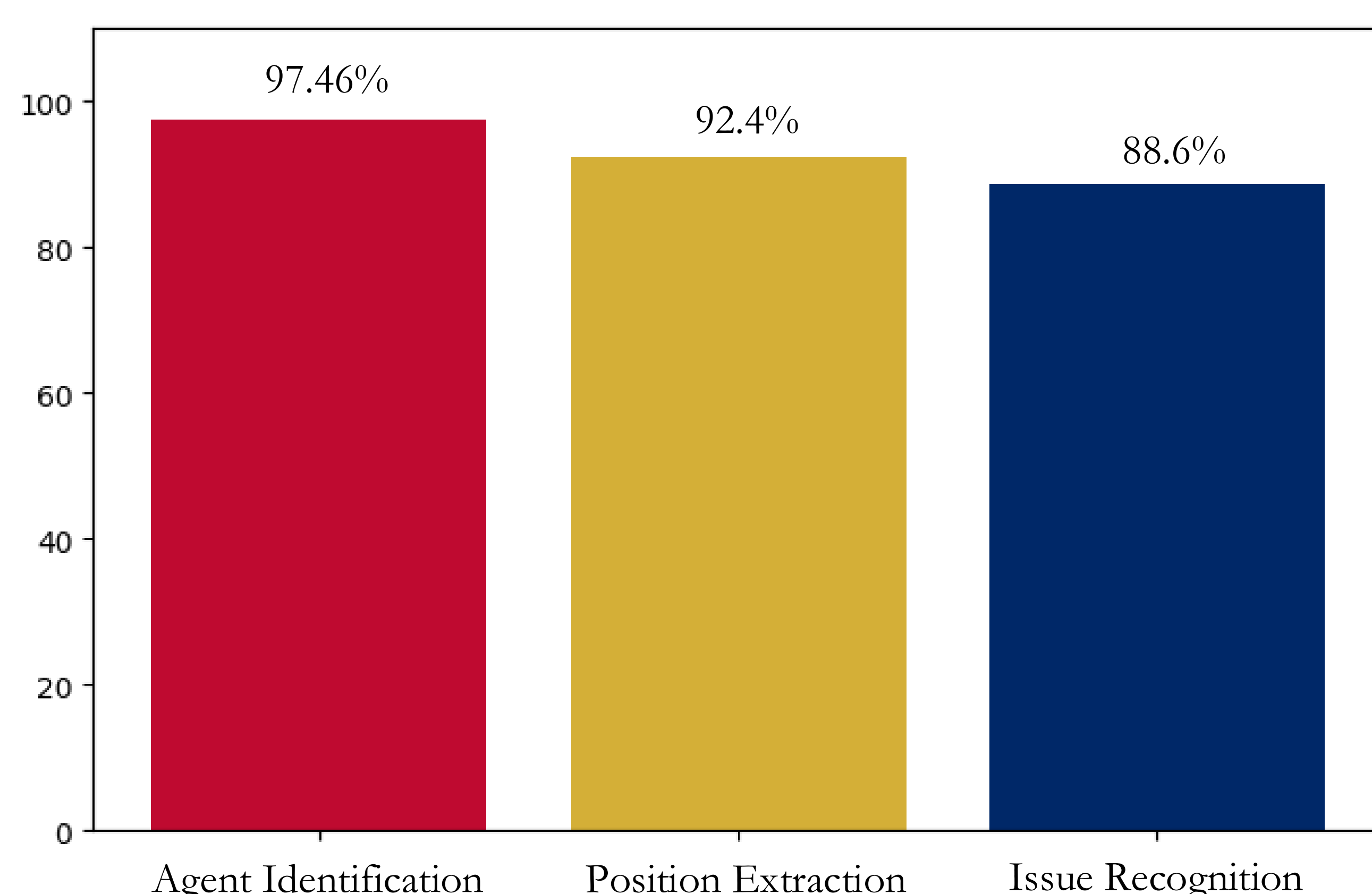
[Show more](#)

Vote: **Yea**

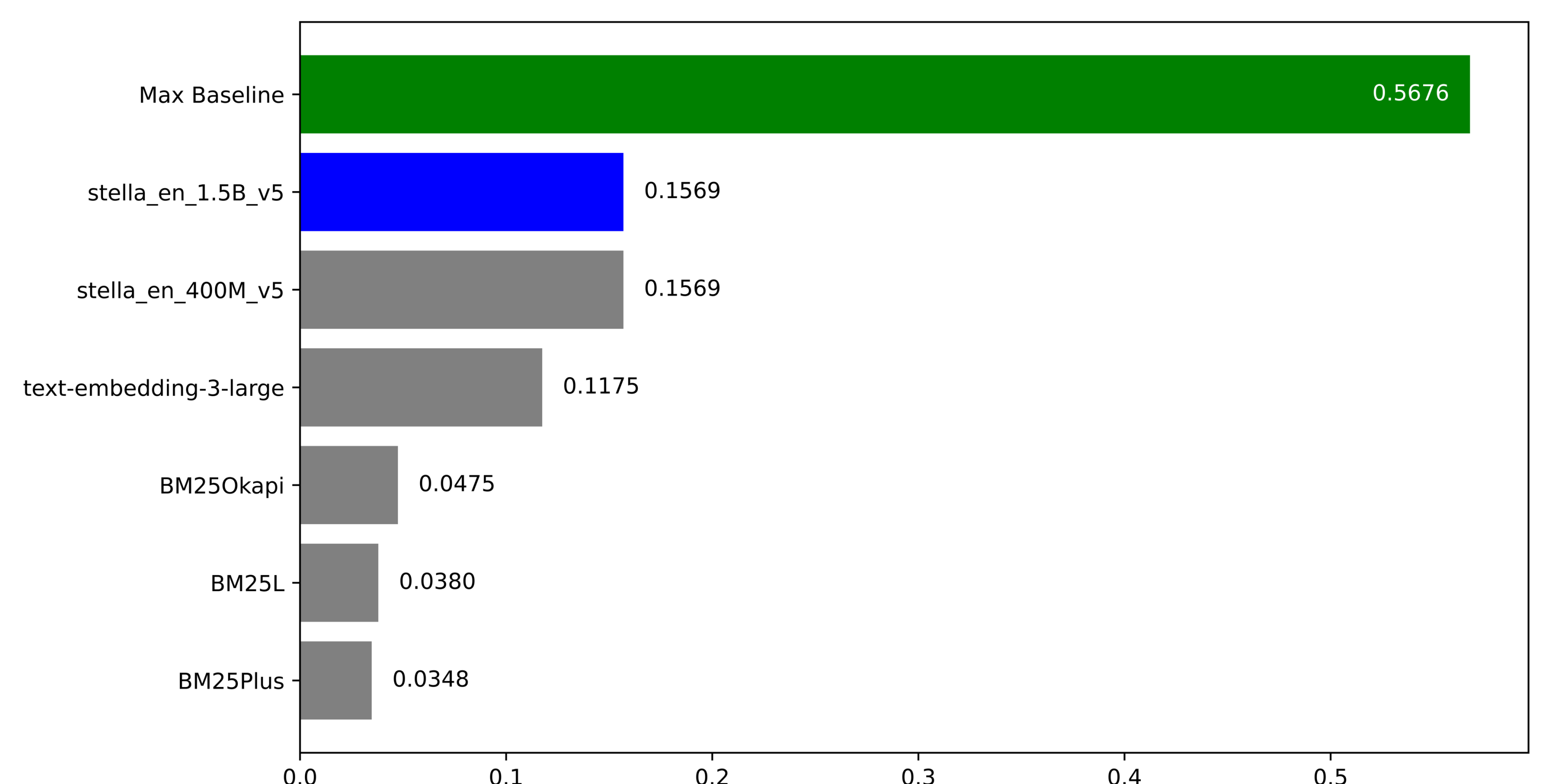
Alignment: **Refutes**

Results

Frame Semantic Parser – Exact Match Accuracy



Bill Search – Recall @ 10



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