

[LMRAG – A Hybrid search method using LLM, RAG and Multi-Feature Ranking]

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Research Motivations

Existing keyword and semantic-based search **methods are facing challenges** in delivering accurate & efficient search results.
Developing an accurate and efficient search engine is getting attention from researchers, such as Ontology-based search.

Recently, numerous companies such as Google and Perplexity are focusing on development of LLM-based search method, but the cost and accuracy is becoming an issue.

We proposed LLM, RAG and Multi-Feature Ranking based search model.

User Study & Data Collection

User Input (Resume + Text information)

- ▶ User input for the lmrage_zighang.com site is 1) Resume and 2) Text information.
- ▶ Resume is accepted in form of pdf and image data, for user convenience.
- ▶ Text information gathers information such as preferences (Salary, Place of employment) from the user.

Data collection (44,331 Job Postings)

- ▶ Job posting data is provided by Zighang (up-to-date on October 19, 2025)

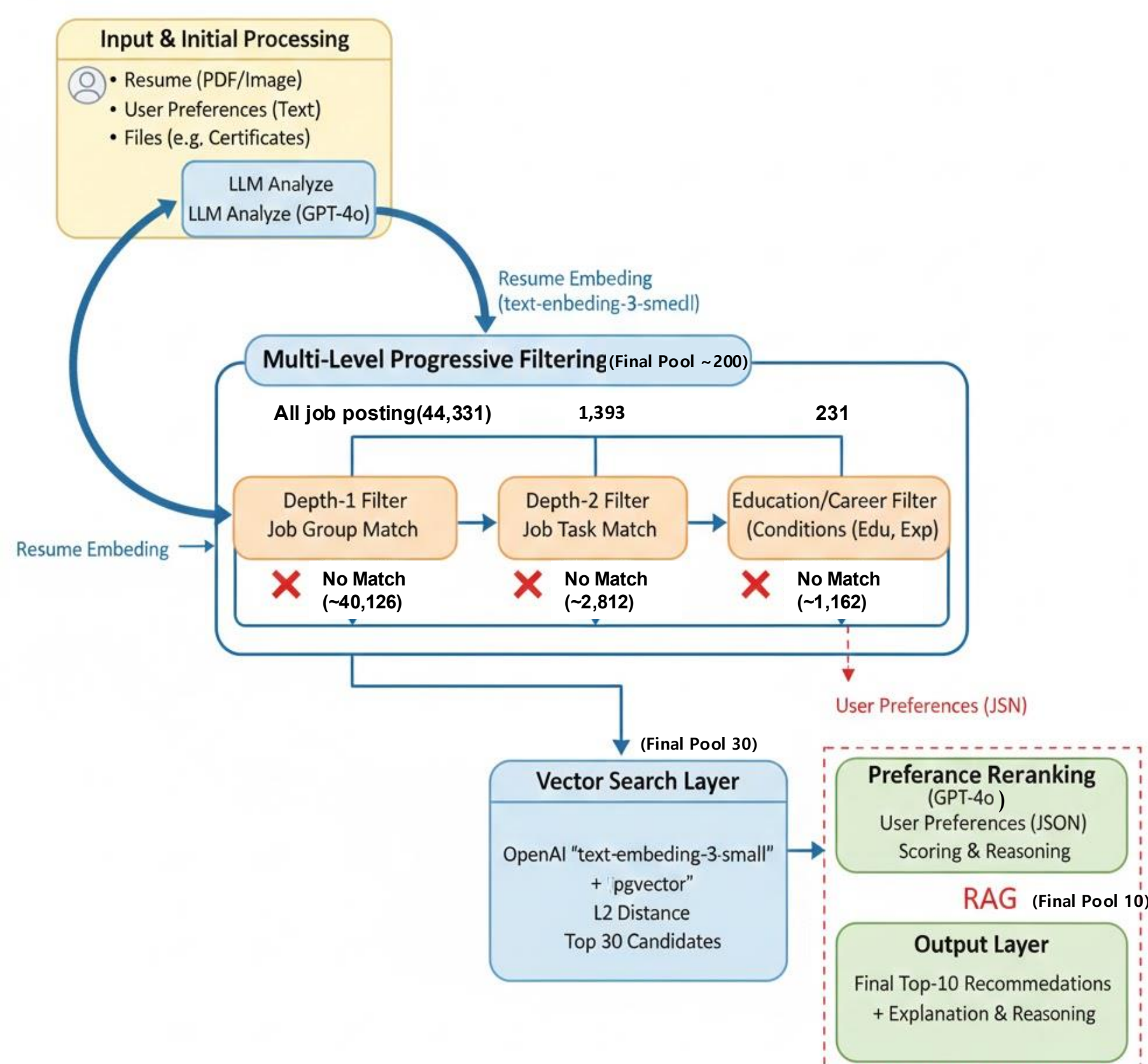
이력서를 등록하고 손목을 지키세요

이력서를 업로드하면 직행 AI가 내용을 분석해
앞으로 자동 작성 가능한 지원서 정보를 채워드립니다.
반복되는 탐색을 한 번에 해결하세요.



업로드 할 이력서 놓기
또는
파일 선택

Model development



Performance Statistics

Resume	Profile	Preference
1	Junior Backend Dev.	Growth Potential + Welfare
2	Junior Finance/Ops	High Salary + Growth Potential
3	Marketing Planner	Work-Life Balance + Welfare
4	IT/AI Experienced	Growth Potential + High Salary
5	Junior IT/AI	Growth Potential + Work-Life Balance

Resume	Rank Change (Avg.)	New Entries (Top 10)	Score Improvement
1	2.3	3	+12.0%
2	3.1	4	+18.0%
3	1.8	2	+8.0%
4	2.7	3	+15.0%
5	2.5	3	+13.0%
Avg.	2.5	3.0	+13.2%

Future Work

We are currently conducting a structured user interview, and the overall satisfaction statistics are being gathered. The HCI evaluation would be shared in the final report. We also plan to apply LMRAG to Zighang site, which would lead to a high increase in the customer retention rate.