

# Finding the best talents - LLM-based resume matching

## Industry Background

### Manual Screening

Time per resume...

recruiter spend

7 sec

miss info

VS

needed to fully read<sup>[2]</sup>

70 sec

invest time

Bias in Selection



### Automated Screening with Applicant Tracking System (ATS)

#### Keyword Matching

- ✓ Technical skills
- ✗ Soft Skills
- ✗ Growth potential

used by **97.4%**<sup>[3]</sup> of all Fortune 500

miss context

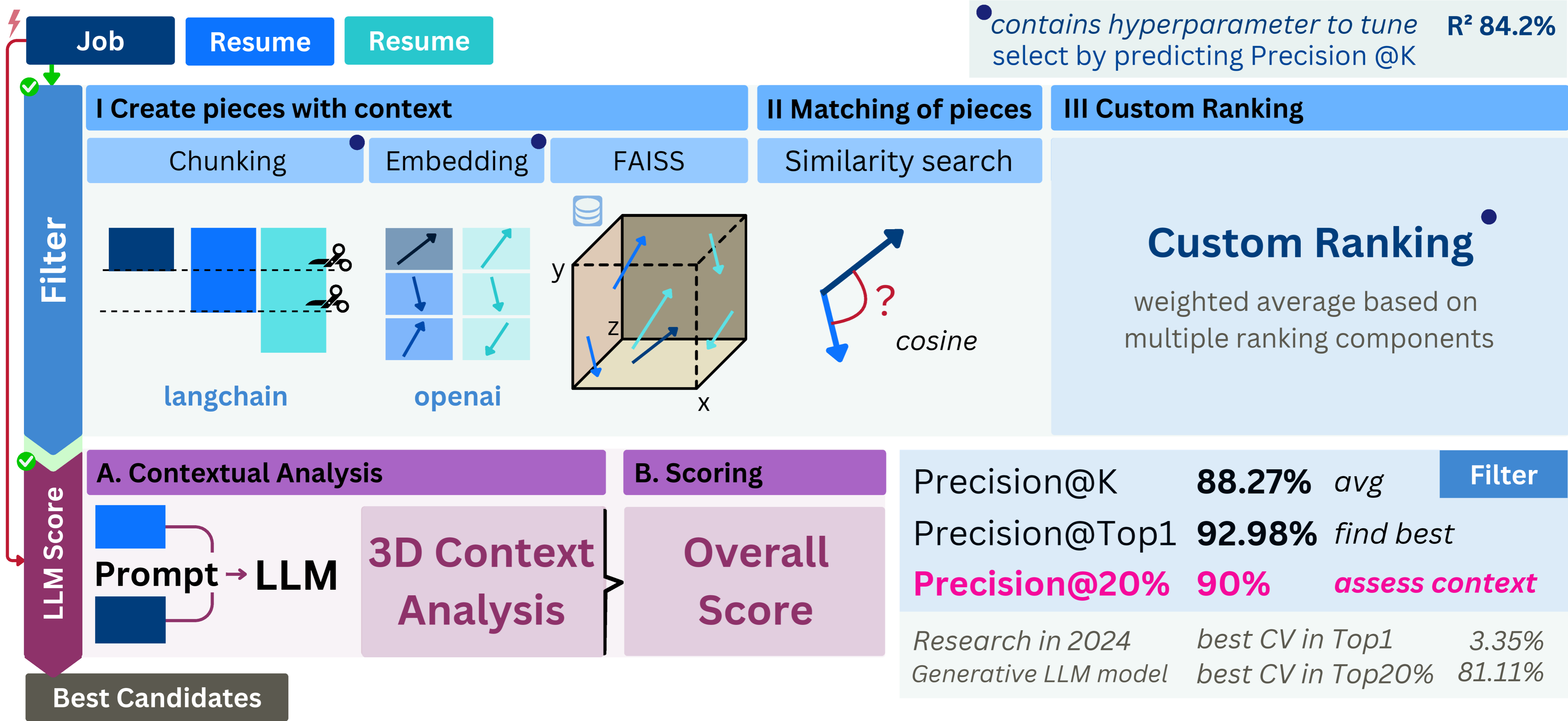
wrong hiring decisions are costly

**53%** lack of skills, engagement & inefficiency<sup>[1]</sup>

**480 million** per year<sup>[1]</sup>

**47%** attrition, vacancies and rehiring<sup>[1]</sup>

## Solution Architecture



## Impact

increased detailedness and fairness scalability boost explainability and LLM transparency

100 Candidates  
10 Jobs

**3.3**  
minutes

- Employee satisfaction
- Increase retention
- Boost overall performance

**1,123**  
times faster

than manual screening  
(with avg screening time of 7 sec/resume)

## Future work

expand dataset size

automate LLM evaluation

strategically test newer LLM models

[1] V. Bérubé et al. "Increasing your return on talent: The moves and metrics that matter," McKinsey

[2] J. Kurek et al (2024) "Zero-shot recommendation ai models for efficient job-candidate matching in recruitment, <https://doi.org/10.3390/app14062601>

[3] JobScan, "Fortune 500 use applicant tracking systems.", <https://www.jobscan.co/blog/fortune-500-use-applicant-tracking-systems-2024>. Accessed: 2024-08-06.