



THE UNIVERSITY
of EDINBURGH

ADAM DEPAUW

MATTHEW AQUILINA

ARISTOTELIS ANASTASSIOU

FORGING THE PERFECT RECOGNITION

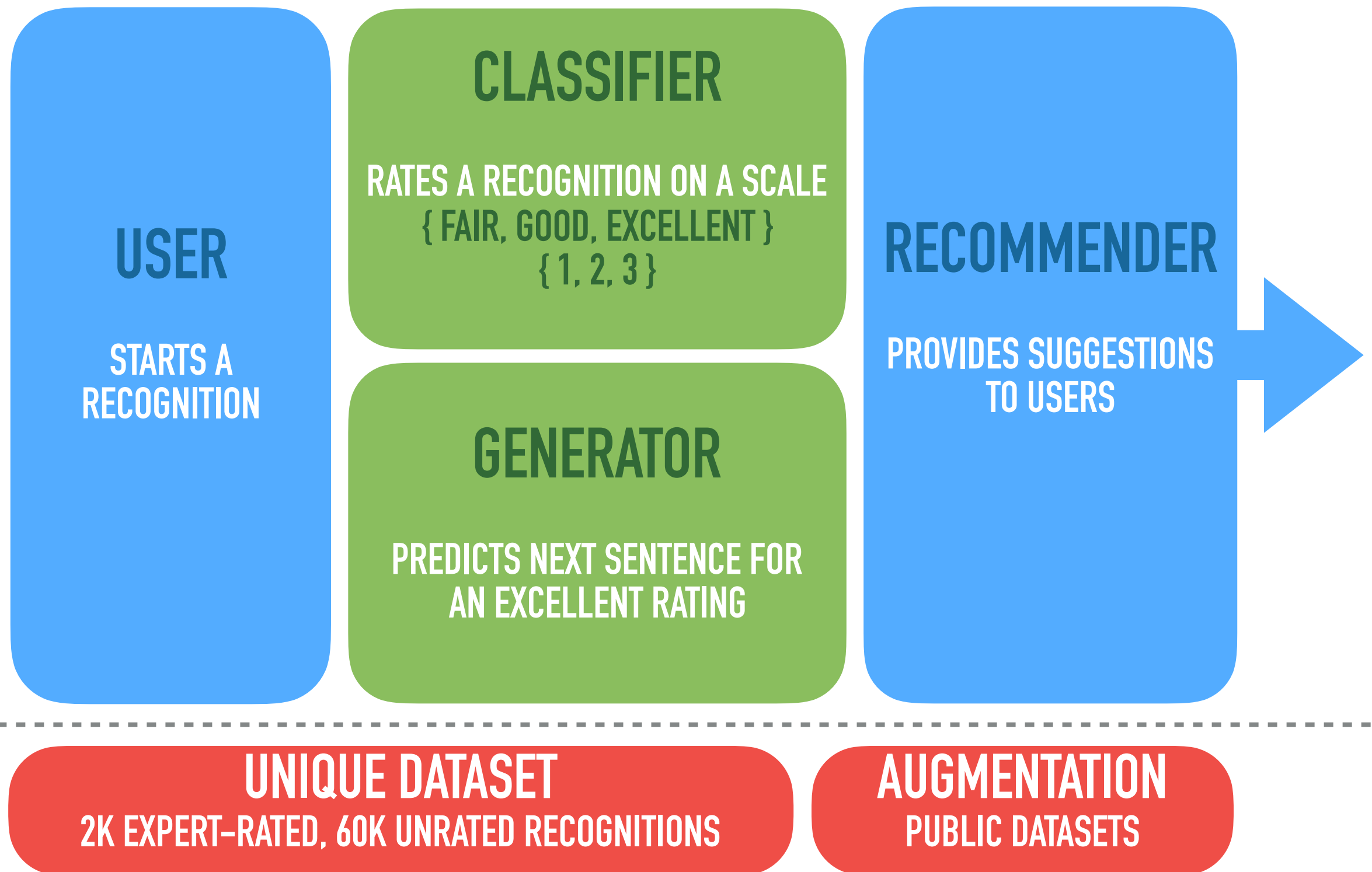
MOTIVATION

- Recognitions are written commendations for a person's work.
- They increase employee engagement and foster a healthy work culture.
- We want to help authors to write recognitions which are more impactful to their recipients.

Thank you for your **quick response** to the recent project requests!

Thank you so much for all you do to **assist** with the blast emails and web design **this past week**. Your **attention to timelines**, willingness to make changes **so quickly**, and **friendly demeanor** are so nice to work with. Thank you again!

OUR APPROACH



CLASSIFICATION

- Experimented with multiple text-embedding methods.
- Augmented with Transfer Learning embeddings (Yelp/Amazon Reviews).
- Exhaustive search through feature combinations.
- Fed into optimised fully-connected neural network architecture.

RESULTS

OVERALL CLASSIFICATION ACCURACY OF 76%.

LESS THAN 1% MISMATCH BETWEEN LOWEST-AND HIGHEST-RATED RECOGNITIONS.

GENERATION

- We adopted two generative approaches, an LSTM and a Skip-Thoughts Model.
- Character-Level LSTM
 - Well-formatted, but somewhat general results.
- Skip-Thoughts Vectors
 - Less-legible results, but show good semantic value.

Key	LSTM	Original Recognition	Skip-Thoughts
-----	------	----------------------	---------------

You provided tremendous value through your insight and analysis and it was also appreciated by our clients during the review.



Very much appreciate your insight, work involving your team, always go above and beyond to ensure they can be relative.

This review enables <UNK> to stand apart from other suppliers and enables us to create a competitive point of differentiation!

it was you for your congratulations, appreciated this contributing both as discussed things the <UNK> partnership

RECOMMENDATION RESULTS AND CONCLUSIONS

- Generations were used to recommend one of four domain expert-selected qualities.
- Evaluation proved that our suggested sentences generally increased rating for recognition.
- While this would need further human testing in practice, we have shown that our system can indeed forge better recognitions.

