

Towards Transparent Judging: Sentiment Analysis and Score Distribution in Educational Competitions

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Capstone projects represent practical projects carried out at the end of a study program or chapter, integrating knowledge into functional solutions, relevant for real-life contexts. The complex nature of these projects introduces challenges due to the subjective nature of their evaluation, which we aim to mitigate through our proposed contribution.

This paper analyzes the relationship between the Gaussian distribution of scores obtained in an educational competition and the reduced influence of negative feedback on the final results, using a dedicated mobile application in the evaluation process. The implemented application has a distributed architecture based on microservices and includes secure authentication using JWT, rate limiting mechanisms, and automated analysis of the sentiments associated with the participants' feedback. The obtained results show that the polarity is predominantly positive and the sentiment strongly correlates with a normal distribution of scores, suggesting that an automated sentiment evaluation can contribute to the transparency and objectivity of the judging process. An extensive analysis, along with more data, will be presented in the paper.

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