

Logistic Regression

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Abstract—

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ACKNOWLEDGMENT

REFERENCES

- [1] R. Mansoor, N. D. Jayasinghe, and M. M. A. Muslam, "A comprehensive review on email spam classification using machine learning algorithms," in *2021 International Conference on Information Networking (ICOIN)*. IEEE, 2021, pp. 327–332.
- [2] F. Bu and Q. Xie, "Research on emergency evacuation traffic trip generation forecasting based on logistic regression," in *2010 IEEE International Conference on Emergency Management and Management Sciences*. IEEE, 2010, pp. 504–507.