

# GatoORPy: A Custom Implemented Linear Programming Solver

Andres Espinosa  
Industrial and Systems Engineering  
University of Florida  
andresespinosa@ufl.edu

*Abstract—*

## I. INTRODUCTION

## II. PROJECT CONTEXT

A. *Linear Programming*

B. *Simplex Algorithm*

C. *Graph Neural Networks*

## III. RELATED WORK

I am [1]

## IV. IMPLEMENTATION

A. *Simplex Implementation*

B. *Python Objects*

C. *LP Reductions*

## V. RESULTS

A. *Testing Framework*

B. *Testing Results*

## VI. CONCLUSION AND FUTURE WORK

## VII. CONTRIBUTIONS

## VIII. ACKNOWLEDGEMENTS

## IX. APPENDIX

## REFERENCES

- [1] F.-X. Devailly, D. Larocque, and L. Charlin, "Ig-rl: Inductive graph reinforcement learning for massive-scale traffic signal control," *IEEE Transactions on Intelligent Transportation Systems*, vol. 23, no. 7, p. 7496–7507, Jul. 2022. [Online]. Available: <http://dx.doi.org/10.1109/TITS.2021.3070835>