Neural Network solutions to Witsenhausen problem

Jiaojiao Fan *GTID:903565753*

Email: jiaojiaofan@gatech.edu

Abstract—In this report, several neural networks with different structures are implemented to solve Witsenhausen problem. Other improving strategies include optimizers, initializations and forced function fixing. Finally, the result are compared with former people and a better result is obtained. Also, the shortcoming of the neural network also shows in this project. The neural network may be stuck into a near local minima.

1. Introduction

In this report, we proposed several solutions to the well-known and still unsolved Witsenhausen counterexample. [1]

1.1. Subsection Heading Here

Subsection text here.

1.1.1. Subsubsection Heading Here. Subsubsection text here.

2. Conclusion

The conclusion goes here.

Acknowledgments

Thanks to Dr. Yongxin Chen and the other PhD studens: Rahul Singh and Qinsheng Zhang for their kind help. They give me a lot of ideas during the process of project.

References

[1] H. S. Witsenhausen, "A counterexample in stochastic optimum control," *SIAM Journal on Control*, vol. 6, no. 1, pp. 131–147, 1968.