Rapport de stage

Nathan Boyer

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Abstract

It's possible to distribute the Internet to users via drones. However, this raises the question of how to place the drones around the users, and how to distribute the bandwidth between the different users. A reinforcement AI has already been designed to address this problem. However, in this article, we will see how learning and optimization can be combined to further improve performance.

1 Probleme presentation

We have m users, classified into 3 categories, each class having its own bandwidth demand for a drone. We then want to place n drones, and for each drone, decide how much of its bandwidth it gives to each class of drone, so that as many drones as possible are satisfied, i.e. the bandwidth available to them is greater than or equal to their demand.