Thank you for accepting the rules.

Swag • 210 teams

Santa's Uncertain Bags

Tue 20 Dec 2016

Merger and Entry Deadline

Mon 30 Jan 2017 (37 days to go)

Dashboard

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Kernels
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Leaderboard

My Team

My Submissions

Public Leaderboard

1. nagadomi
2. GuillaumeDerval
3. hamelg
4. James Trotman
5. OptaPlanner Delirium
6. seed71
7. Komaki
8. dd
9. yowa
10. Andrey Ostapets

123 Kernels

Merry Christmas Y'all!
11 Votes / 7 hours ago / R

Giba Naive1
10 Votes / 16 hours ago / Python

Competition Details » Get the Data » Make a submission

Data Files

File Name	Available Formats
gifts.csv	.zip (15.61 kb)
sample_submission	.csv (67.25 kb)

Santa has 1000 bags to fill to fill with 9 types of gifts. Due to regulations at the North Pole workshop, no bag can contain more than 50 pounds of gifts. If a bag is overweight, it is confiscated by regulators from the North Pole Department of Labor without warning! Even Santa has to worry about throwing out his bad back.

Each present has a fixed weight, but the individual weights are unknown. The weights for each present type are not identical because the elves make them in many types and sizes.

Although the weights were deleted from the database, the elves still have the blueprints for each toy. After some complex volume integrals, the elves managed to give Santa a probability distribution for the weight of each type of toy. To simulate a single gift's weight in pounds, they came up with the following numpy distribution parameters:

```
horse = max(0, np.random.normal(5,2,1)[0])

ball = max(0, 1 + np.random.normal(1,0.3,1)[0])

bike = max(0, np.random.normal(20,10,1)[0])

train = max(0, np.random.normal(10,5,1)[0])

coal = 47 * np.random.beta(0.5,0.5,1)[0]

book = np.random.chisquare(2,1)[0]

doll = np.random.gamma(5,1,1)[0]

block = np.random.triangular(5,10,20,1)[0]

gloves = 3.0 + np.random.rand(1)[0] if np.random.rand(1) < 0.3 else np.random.rand(1)
[0]
```

Filling bags with Simulated Annealing
3 Votes / 11 hours ago / Python

Fill Those Bags with a GA-based Search!
15 Votes / 2 days ago / R

Santa's distributions in R
17 Votes / 3 days ago / R

Plotting Example Gift Weights
18 Votes / 3 days ago / Python

Forum (29 topics)

Estimate effectiveness of a bag of gifts
10 minutes ago

MonteCarlo-simulation and check of submissions
1 hour ago

Giba Naive1
5 hours ago

Merry Christmas Y'all!
6 hours ago

Shuffle submission.csv
7 hours ago

Filling bags with Simulated Annealing (Forked)
9 hours ago

teams

players

entries

gifts.csv contains the GiftIds which you must sort into Santa's bags. The text of the GiftId contains the type of toy. You do not need to include all GiftIds or all bags when submitting. The evaluation page provides full details on scoring.