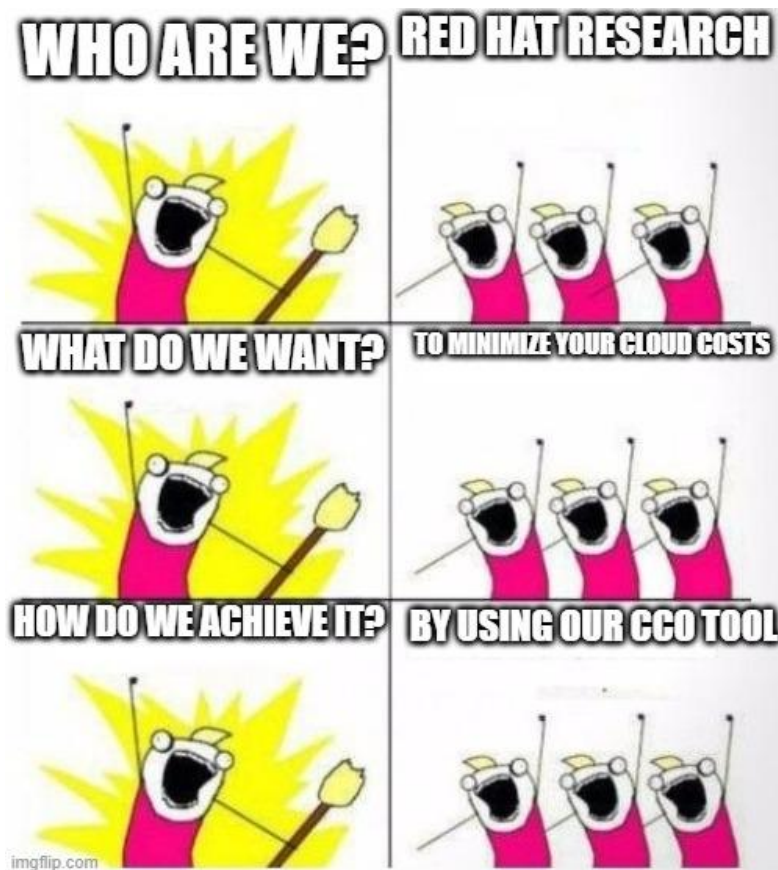


A vertical red graphic on the left side of the slide. It contains various white icons: a cloud with a keyhole, a database cylinder, a server rack, a monitor, and several arrows (one pointing up, one pointing right, one pointing down) and 'X' marks, suggesting a process of optimization or cost reduction.

# Cloud Cost Optimizer

Minimize your cloud spendings

# In a Nutshell

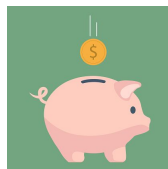
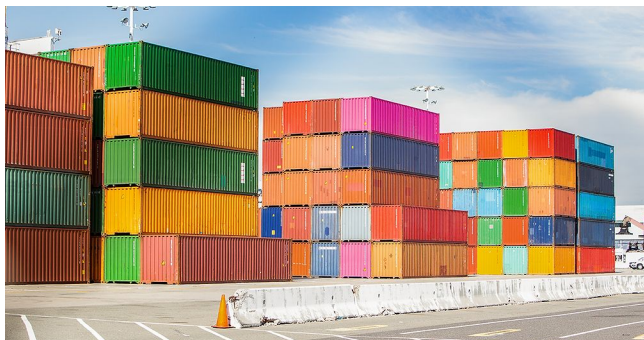


# Who are we?



# Red Hat Research

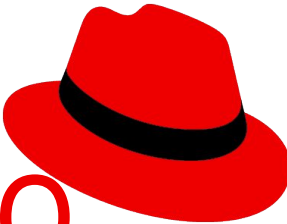
# What do we want to achieve?



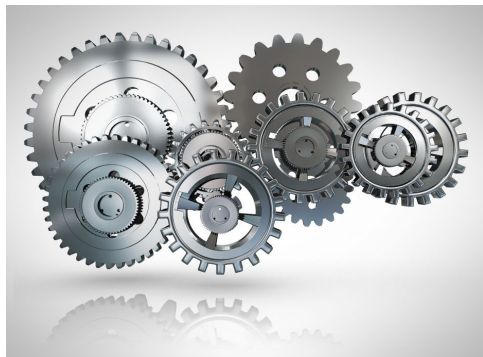
# How do we achieve it?



# Demo

A red fedora hat with a black band, tilted slightly to the right, positioned to the right of the word "Demo".

# Onwards from the simplest case



Complex multi-component applications



Multiple instance types,  
regions and other  
parameters



Multiple cloud providers



Highly dynamic environment



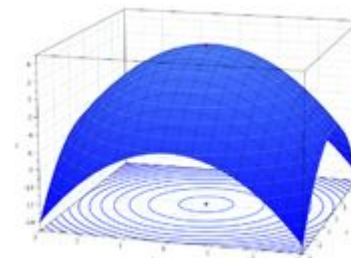
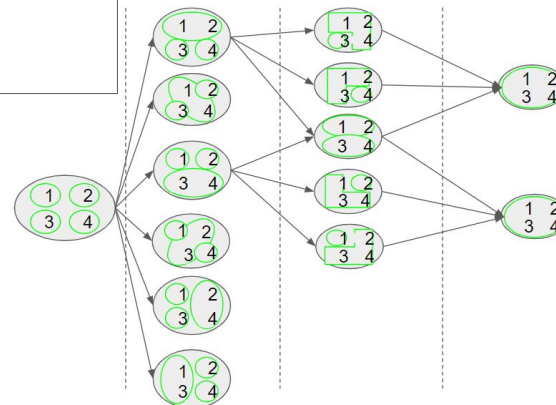
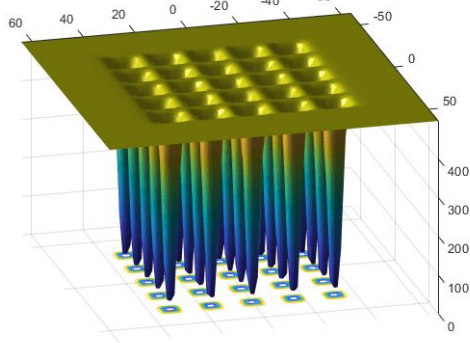
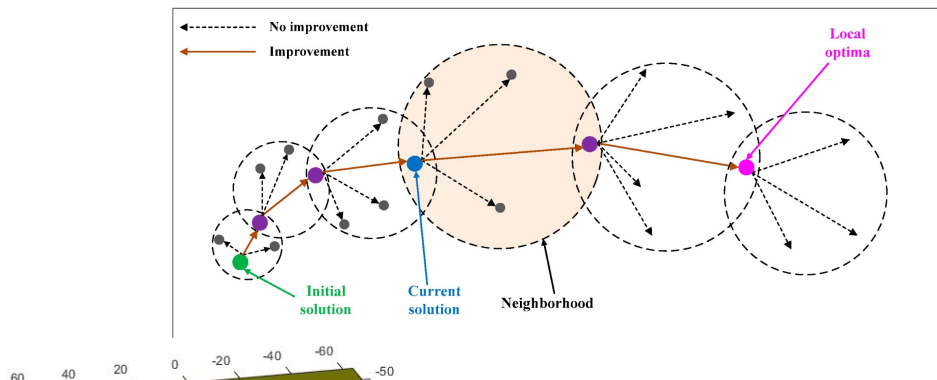
Multiple performance  
objectives

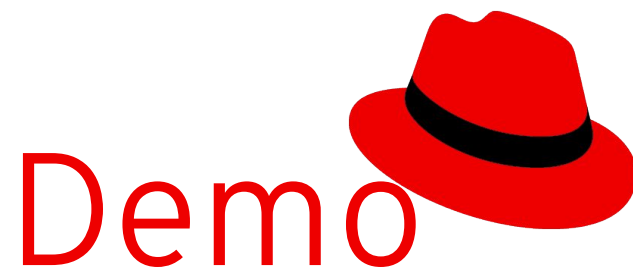
# The Main Challenge - Exponential Complexity





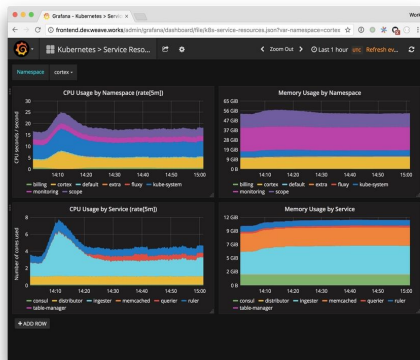
# The Solution - Advanced Metaheuristics





**Wait, isn't this talk supposed to be  
about a Data Science project?**

# Ongoing and future work



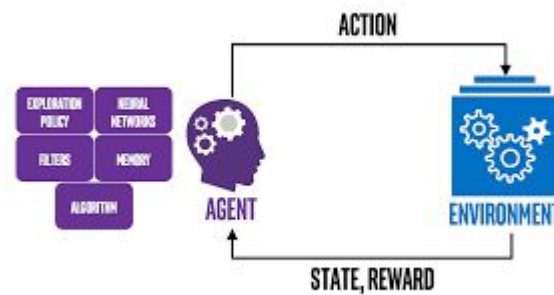
Learning application resource consumption



Predicting spot interruptions



Forecasting cloud price changes



RL for solving the optimization problem

# Cloud Cost Optimizer

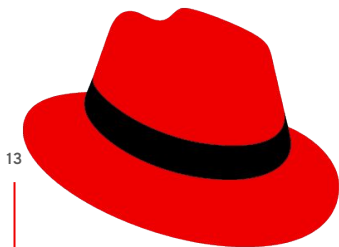
Repo:

[https://github.com/aicoe-aiops/cloud-price-analysis-public/tree/master/src/CloudCostOptimizer%20\(CCO\)](https://github.com/aicoe-aiops/cloud-price-analysis-public/tree/master/src/CloudCostOptimizer%20(CCO))

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*SCAN ME*





# Questions?