```
Get["ConjugateGradientClassifier`"]

(*The arguments for the function are: a) training data b) costfunction, c)
     costfunction gradient, d) initial parameter (theta), & e)
 hyperparameter values (lambda). At present the algorithm
 only works for numerical data *)

data1 = Import["bostonhomes.dat", "Data"];

ConjugateGradientClassifier[data1,
 costfunc, gradient, thetazero[14], lambdazero[2]]

⟨|MinCost[trainingdata] → 10.9474,
 theta_trained = → {{22.5328}, {-0.925786}, {1.08204}, {0.143307},
   {0.682113}, {-2.06112}, {2.67641}, {0.0223666}, {-3.10553},
   {2.66296}, {-2.07911}, {-2.06346}, {0.850084}, {-3.74928}}|⟩

data2 = Import["slumptest.dat", "Data"];

ConjugateGradientClassifier[data2,
 costfunc, gradient, thetazero[10], lambdazero[2]]

⟨|MinCost[trainingdata] → 2.74388,
 theta_trained = → {{36.0393}, {4.68157}, {-1.94596}, {4.00421},
   {-4.71576}, {0.0973867}, {-4.84031}, {-2.39751}, {-2.06573}, {1.48892}}|⟩

data3 = Import["ex2data2.txt", "Data"];

ConjugateGradientClassifier[data3, costfunc, gradient, thetazero[3],
 lambdazero[2], Method → "Logistic", "HypothesisMethod" → "Sigmoid"]

⟨|MinCost[trainingdata] → 0.690241,
 theta_trained = → {{-0.0349804}, {-0.151517}, {-0.0092373}}|⟩

data4 = Import["chapman.dat", "Data"];

ConjugateGradientClassifier[data4, costfunc, gradient, thetazero[8],
 lambdazero[2], Method → "Logistic", "HypothesisMethod" → "Sigmoid"]

⟨|MinCost[trainingdata] → 0.337114,
 theta_trained = → {{-2.24643}, {-0.0191021}, {0.535557},
   {0.113213}, {-0.0667768}, {0.403681}, {-0.183528}, {0.501201}}|⟩
```