Decision Tree Classification on Outsourced Data

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Data Publisher (Client)

SQL Queries

Anatomization

Data Storage (Cloud Database Server)

Collaborative Decision Tree Classifier

Dependent variable: PLAY

- Outlook:
  - Sunny
    - Humidity:
      - <= 70
        - Play 2
        - Don't Play 0
      - > 70
        - Play 0
        - Don't Play 3
    - Overcast
      - Play 4
      - Don't Play 0
    - Rain
      - Play 3
      - Don't Play 2
  - Don't Play 5
  - Play 9

Previous Work (Nergiz et al., Xiao et al.,...)

Our Work

Learn Big Part

Learn Very Small Parts (Amortized)