

Regulating Collective
Investment Schemes
Targeting Agricultural
Commodities in India

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Overview

- 1 General overview assignment
- 2 Our System
- 3 Highlights
 - Recommender
 - Searching & Ranking
- 4 Future Implementations
- 5 Evaluation
- 6 Questions

Our System
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General Overview

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- 5 main topics:
 - Recommender
 - Clustering
 - Searching & Ranking
 - Decisional Filtering
 - Filtering, Subsequent Iteration
- Highlights
 - Recommender
 - Searching & Ranking

Recommender

1. Input: author or paperID (converted to author)
 2. Based on:
 - cosine distance the closer the better
 - citation list with authors
 - 3. Information and recommended top 5
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Let's look at the code

Questions?

Future Implementations

- More submodel GUI
 - Optimization of the program
- Future Implementations
Let's look at the code

Searching & Ranking

1. Input: wordID
 2. Word frequency, word distance, document frequency, PageRanking
 3. Run output for each part - ranking
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Let's look at the code

Evaluation

Different Skills • different tasks
Good book
Very relevant

All information at the start
Update Course Guide

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Overview

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Overview

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- ② Our System
- ③ Highlights
 - ReCommender
 - Searching & Ranking
- ④ Future Implementations
- ⑤ Evaluation
- ⑥ Questions

General Overview

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- 5 main topics:

Recommender

Clustering

Searching & Ranking

Document Filtering

Finding Independent Features

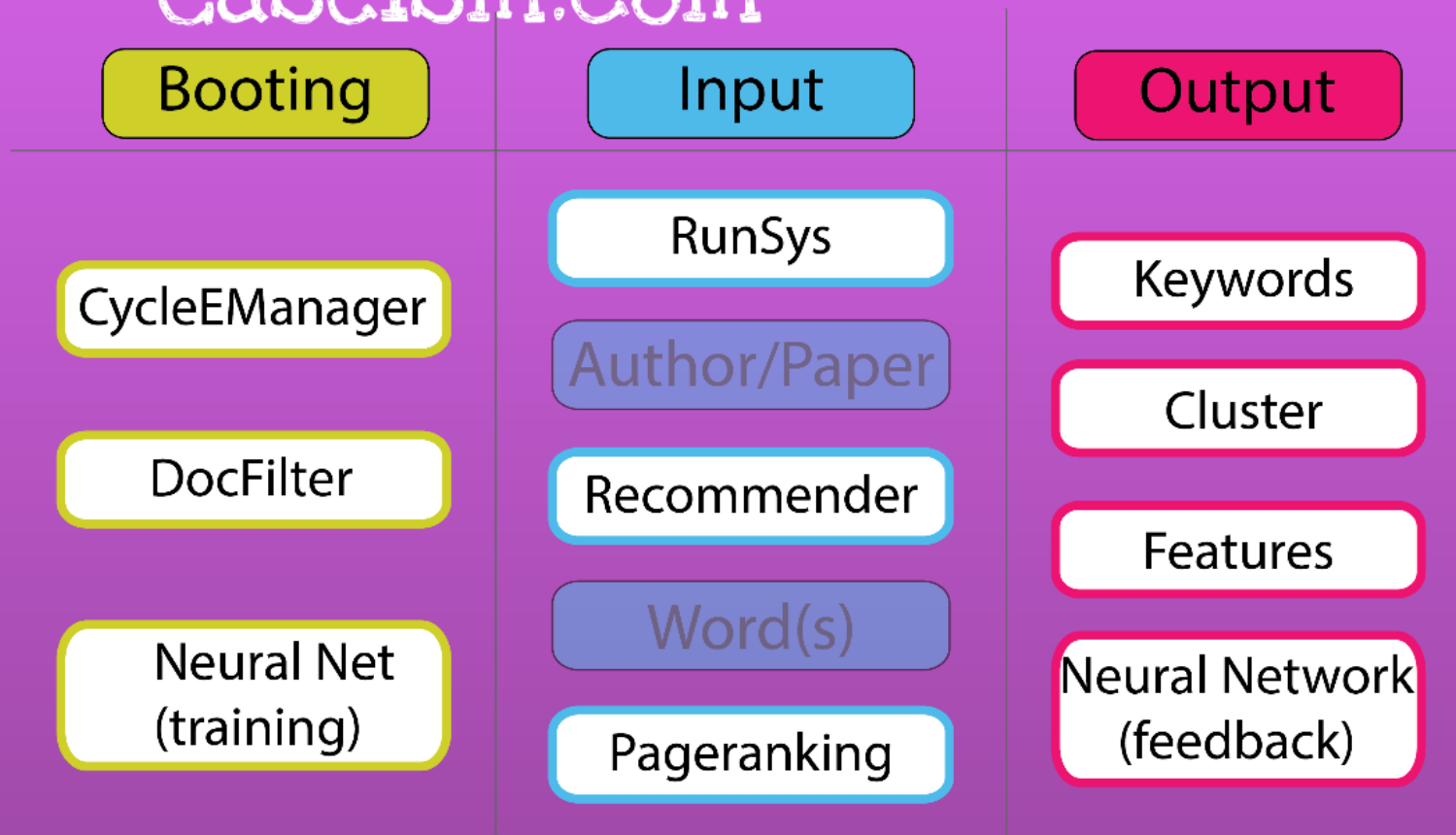
- Highlights:

✓ Recommender

✓ Searching & Ranking

Our System

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Recommender

1. Input: author or paperID (converted to author)
2. Based on
 - coauthor distance: the closer, the better
 - citations: list with authors
3. Normalize and recommend top X

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Let's look at the code



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```
def Recommender(InData, SumFile, CitFile, AddSumFile, AuthorsFile, ListN=5):
    InDataA = []; RecomDat=[]; SumSet = SumFile.keys(); InDat=[]; InDat.append(InData); InDat = sum(InDat,[]);
    for i in range(len(InDat)):
        if InDat[i] in SumFile: #Check if input is PaperID, if so, add authors of paper to Author List
            InDataA += SumFile[InDat[i]][1]
        if InDat[i] in AuthorsFile: #If author, add author to Authors InData list
            InDataA.append(InDat[i])
    #Authors from Citations,Cited,COAuthors
    Authors = Counter(); #AuthorsFile[Author Name] = [PID lists in which the Author occurs, List of COAuths]
    for Author in InDataA: #Counts the ammount of collaborations + the amount of crossings of authors with
        citations/citings
        Authors.update(AuthorsFile[Author][1]) #CoAuthors #AuthorsFile[Author][0] #Papers of this Author
        Authors.update(sum(sum([[SumFile[CitID][1] for CitID in CitFile[i] if CitID in SumSet] for i in AuthorsFile[
            Author][0]],[]),[])) #Paper Cites
        Authors.update(sum(sum([[SumFile[CiteID][1] for CiteID in AddSumFile[i]['CiteDB'] if CiteID in SumSet] for i in
            AuthorsFile[Author][0]],[]),[]))
    for Author in InDataA:
        if Author in Authors:
            del Authors[Author]
    for Author in Authors.keys(): Authors[Author] = float(Authors[Author])/sum(Authors.values()); Authors[Author].replace
        (' ','_') = Authors[Author]; del Authors[Author]; #Normalized Values
    RecomDat = Authors.most_common(ListN) #Recommended Authors and their Values:
    return RecomDat
```

Searching & Ranking

1. Input: word(s)
2. Word frequency, word distance, document location, PageRanking
3. Sum output for each part = ranking

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Let's look at the code



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```
def PPageRank(PID, PageRank, InData, Weights, SumFile, AbsFile, AddSumFile):
    PRWrdCnt = 0.0; PRWrdLoc = 0.0; PRWrdDist = 0.0;
    WrdCnt, WrdNoD, WrdLoc = WordSplit(SumFile[PID][0] + ' ' + AbsFile[PID] if PID in AbsFile else SumFile[PID][0],
    Counter(),Counter());
    if len(set(InData) & set(WrdLoc.keys())) is len(set(InData)): #only if all the words are in the paper, other papers
    -> 0.0 + CitPR
        PRWrdCnt = sum([WrdCnt[InData[i]]/float(len(WrdCnt)) for i in range(len(InData)) if InData[i] in WrdCnt])
        PRWrdLoc = sum([1.0/(sum(WrdLoc[InData[i]])+(1.0*len(WrdLoc[InData[i]]))) for i in range(len(InData)) if InData[
        i] in WrdLoc])
        if len(InData) > 1:
            WrdDist = list(product(*[WrdLoc[InData[i]] for i in range(len(InData)) if InData[i] in WrdLoc]))
            PRWrdDist = 1.0/sum([abs(WrdDist[i][0]-WrdDist[i][1]) for i in range(len(WrdDist))])
    PRank = (((PRWrdCnt*Weights['PRWordFreq'])+(PRWrdLoc*Weights['PRWordLoc'])+(PRWrdDist*Weights['PRWordDist'])+(
    AddSumFile[PID]['CitPR']*Weights['PRCite']))/len(InData))/(4.0)
    PageRank.append([PRank,PID])
    return PageRank
```