



Dcengo Unchained Recommender System



Sıla Kaya

Duygu Kabakcı

Koray Kocakaya

İşinsu Katırcıoğlu



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İşinsu Katırcıoğlu

Outline

- Project Definition
- Motivation
- Used Technologies
- Progress
- What comes next?

Project Definition

- What is our project, Sound Tree?



Main Paradigms

- Content-Based Filtering Paradigms
"Show me more of the same what I've liked"
- Collaborative Filtering Paradigm
"Tell me what's popular among my peers"

Reasons Of Our Project

• Reasoned over the course of 11th
• The motivation is
• The main goal is to
• The project is to

Used Tech

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Purpose Of Our Project

- Recommend items that a user is likely to be interested in
- Learn more about their preferences and constraints
- Help users become more aware of their preferences

Main Paradigms

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"Tell me what's popular among my peers"



Motivation

- Popular Topic
 - Huge Data
 - Academic Reasons

Collaborative Approach

- Limited Content vs Huge Data
- New Perspective on music

Other Solutions

amazon.com [Help](#) | [Close window](#)

Recommended for You

 **High Performance Web Sites: Essential Knowledge for Front-End Engineers**
by Steve Souders (Author)
Our Price: **\$19.79**
Used & new from **\$16.24**

I own it
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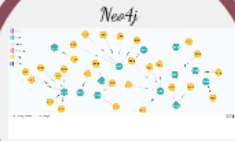
Programming Collective Intelligence: Building Smart Web 2.0 Applications (Paperback)
by Toby Segaran (Author)

This was a gift
 Don't use for recommendations



Used Technologies

- Neo4j
- Html - Css
- Apache Tomcat



Main Page



Progress

- Embedded Data Into Neo4j
- Improve Algorithm
- Develop Web Application

Get Recommendation



Recommendations



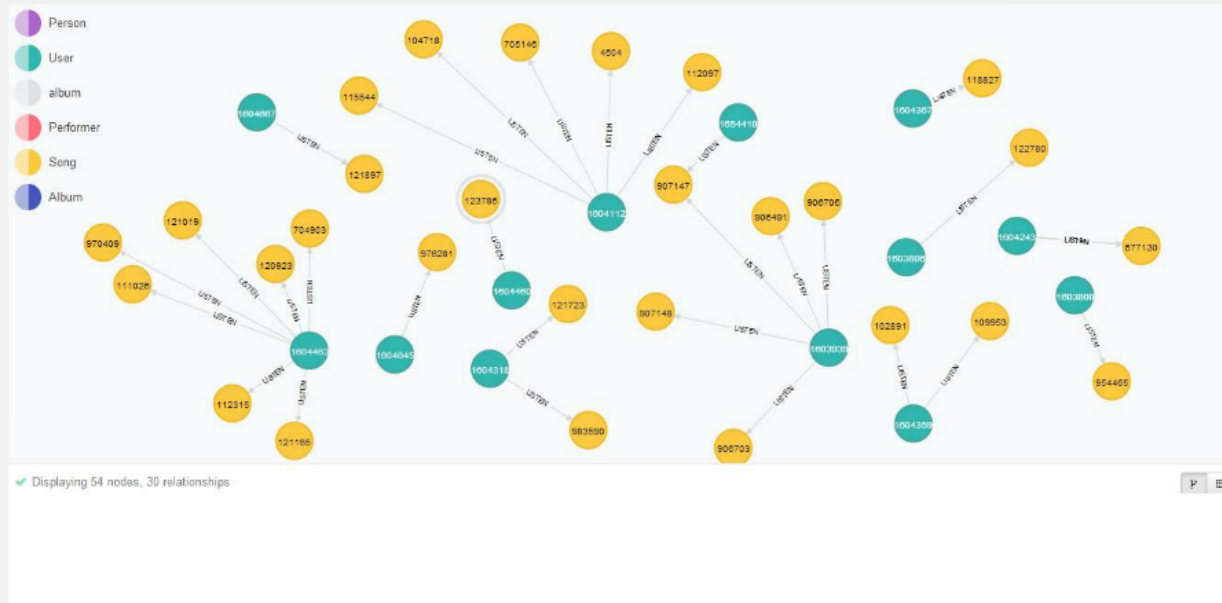
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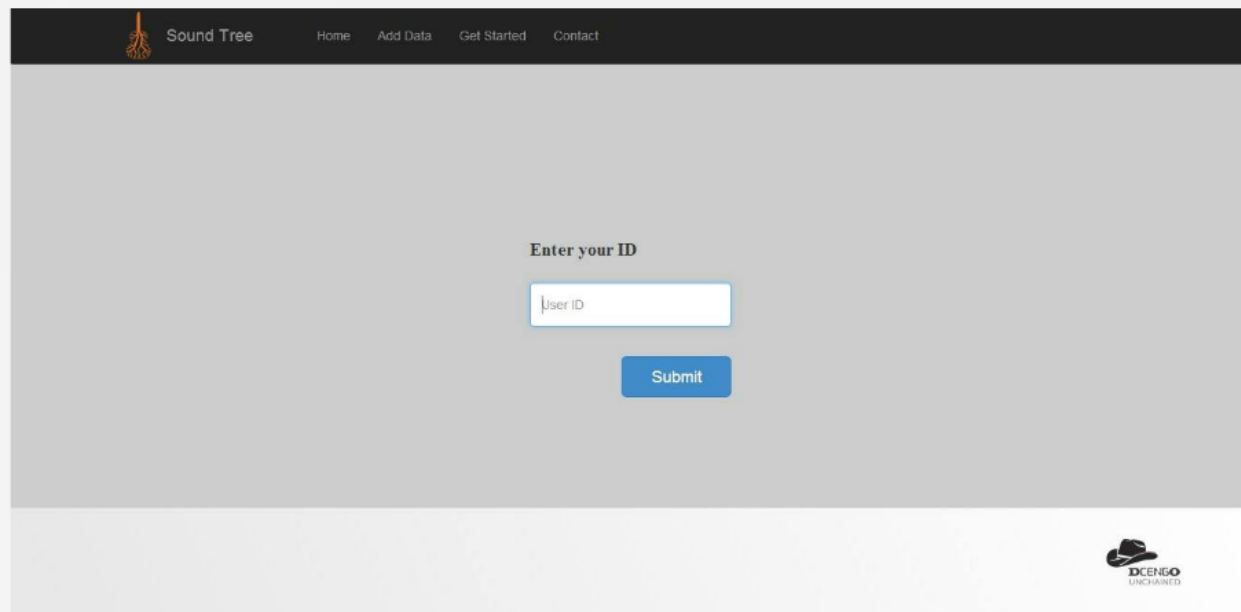
Neo4j



Main Page

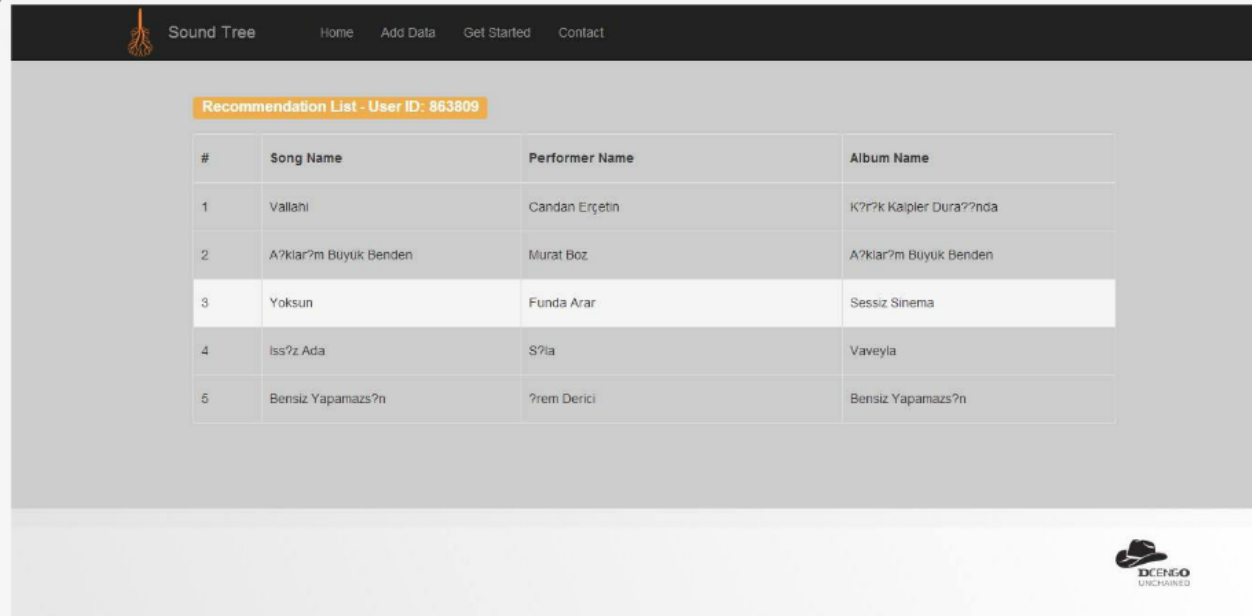


Get Recommendation



The screenshot shows a web application interface. At the top, there is a dark navigation bar with the "Sound Tree" logo and menu items: "Home", "Add Data", "Get Started", and "Contact". The main content area is a light gray rectangle with the text "Enter your ID" centered above a white input field labeled "User ID". Below the input field is a blue "Submit" button. At the bottom right of the page, there is a logo for "DCENGO UNCHAINED" featuring a cowboy hat icon.

Recommendations



Sound Tree Home Add Data Get Started Contact

Recommendation List - User ID: 963809

#	Song Name	Performer Name	Album Name
1	Vallahi	Candan Erçetin	K?rk Kalpler Dura??nda
2	A?klar?m Büyük Benden	Murat Boz	A?klar?m Büyük Benden
3	Yoksun	Funda Arar	Sessiz Sinema
4	Issiz Ada	S?ia	Vaveyla
5	Bensiz Yapamazs?n	?rem Derici	Bensiz Yapamazs?n

DCENGO UNCHAINED

What comes next?

What comes next?

- Machine learning toolkit
- Accuracy estimation module
- Big data & Distributed systems



Accuracy estimation module

- Accuracy estimation is made in offline mode
- Training and testing data sets are used
- RMSE must be as small as possible

Machine learning toolkit

- Weka provides clustering and classification tools
- People with similar preferences are grouped together
- Predictions are made on user-song preferences.

Big data & Distributed systems

- Our system must support big data
- Data set should be distributed among a cluster of computers
- Hadoop & Neo4j can be integrated for this purpose

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