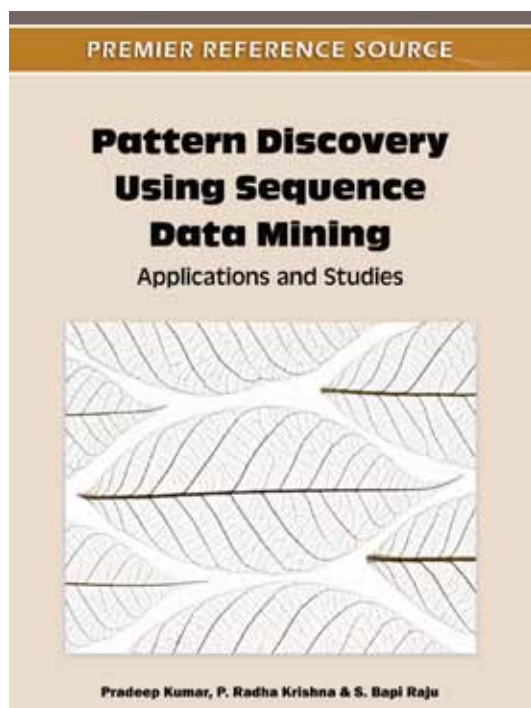


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Pattern Discovery Using Sequence Data Mining: Applications and Studies



Pradeep Kumar (Indian Institute of Management, India),
P. Radha Krishna (Infosys Technologies Limited, India)
and S. Bapi Raju (University of Hyderabad, India)

Sequential data from Web server logs, online transaction logs, and performance measurements is collected each day. This sequential data is a valuable source of information, as it allows individuals to search for a particular value or event and also facilitates analysis of the frequency of certain events or sets of related events. Finding patterns in sequences is of utmost importance in many areas of science, engineering, and business scenarios.

Pattern Discovery Using Sequence Data Mining: Applications and Studies provides a comprehensive view of sequence mining techniques and presents current research and case studies in pattern discovery in sequential data by researchers and practitioners. This research identifies industry applications introduced by various sequence mining approaches.

Topics Covered:

- Classification of Biological Sequences
- Kernel Methods and Classification of Sequential Patterns
- Kinase Sequence Mining for Drug Discovery
- Mining Sequential Patterns from Weblogs
- Mining Statistically Significant Substrings
- Pattern Discovery for Architecture Simulation
- Quantization Based Sequence Generation
- Reverse Nearest Neighbor Search for Multimedia Data
- Video Stream Mining for On-Road Traffic Analysis

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Pradeep Kumar obtained his PhD from the Department of Computer and Information Sciences, University of Hyderabad, India. He also holds an MTech in Computer Science and BSc (Engg) in Computer Science and Engg. Currently, he is working as an Assistant Professor with Indian Institute of Management, Lucknow, India. His research interest includes data mining, soft computing and network security.

Section 1: Current State of Art

Chapter 1

Applications of Pattern Discovery Using Sequential Data Mining

Gupta Manish (University of Illinois at Urbana-Champaign, USA)
Han Jiawei (University of Illinois at Urbana-Champaign, USA)

Chapter 2

A Review of Kernel Methods Based Approaches to Classification and Clustering of Sequential Patterns, Part I:

Dileep A. D. (Indian Institute of Technology Madras, India)
Veena T. (Indian Institute of Technology Madras, India)
Sekhar C. Chandra (Indian Institute of Technology Madras, India)

Chapter 3

A Review of Kernel Methods Based Approaches to Classification and Clustering of Sequential Patterns, Part II:

Veena T. (Indian Institute of Technology Madras, India)
Dileep A. D. (Indian Institute of Technology Madras, India)
Sekhar C. Chandra (Indian Institute of Technology Madras, India)

Section 2: Techniques

Chapter 4

Mining Statistically Significant Substrings Based on the Chi-Square Measure

Dutta Sourav (IBM Research Lab, India)
Bhattacharya Arnab (Indian Institute of Technology Kanpur, India)

Chapter 5

Unbalanced Sequential Data Classification using Extreme Outlier Elimination and Sampling Techniques

Padmaja T. Maruthi (University of Hyderabad (UoH), India)
Bapi Raju S. (University of Hyderabad (UoH), India)
Krishna P. Radha (SET Labs, Infosys Technologies Ltd, India)

Chapter 6

Quantization based Sequence Generation and Subsequence Pruning for Data Mining Applications

Babu T. Ravindra (Infosys Limited, India)
Murty M. Narasimha (Indian Institute of Science Bangalore, India)
Subrahmanya S. V. (Infosys Limited, India)

Chapter 7

Classification of Biological Sequences

Rani Pratibha (International Institute of Information Technology Hyderabad, India)
Pudi Vikram (International Institute of Information Technology Hyderabad, India)

Section 3: Applications

Chapter 8

Approaches for Pattern Discovery Using Sequential Data Mining

Gupta Manish (University of Illinois at Urbana-Champaign, USA)
Han Jiawei (University of Illinois at Urbana-Champaign, USA)

Chapter 9

Analysis of Kinase Inhibitors and Druggability of Kinase-Targets Using Machine Learning Techniques

Prasanthi S. (University of Hyderabad, India.)
Bhavani S. Durga (University of Hyderabad, India.)
Rani T. Sobha (University of Hyderabad, India.)
Bapi Raju S. (University of Hyderabad, India.)

Chapter 10

Identification of Genomic Islands by Pattern Discovery

Parekh Nita (International Institute of Information Technology Hyderabad, India)

Chapter 11

Video Stream Mining for On-Road Traffic Density Analytics

Hota Rudra Narayan (Frankfurt Institute for Advanced Studies, Germany)
Jonna Kishore (SET Labs, Infosys Technologies Limited, India)
Krishna P. Radha (SET Labs, Infosys Technologies Limited, India)

Chapter 12

Discovering Patterns in Order to Detect Weak Signals and Define New Strategies

El Haddadi Anass (University of Toulouse III, France & University of Mohamed V, Morocco)
Dousset Bernard (University of Toulouse, France)
Berrada Ilham (University of Mohamed V, Morocco)

Chapter 13

Discovering Patterns for Architecture Simulation by Using Sequence Mining

Senkul Pinar (Middle East Technical University, Turkey)
Onder Nilufer (Michigan Technological University, USA)
Onder Soner (Michigan Technological University, USA)
Maden Engin (Middle East Technical University, Turkey)
Nyew Hui Meen (Michigan Technological University, USA)

Chapter 14

Sequence Pattern Mining for Web Logs

Kumar Pradeep (Indian Institute of Management, India)
Bapi Raju S. (University of Hyderabad, India)
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