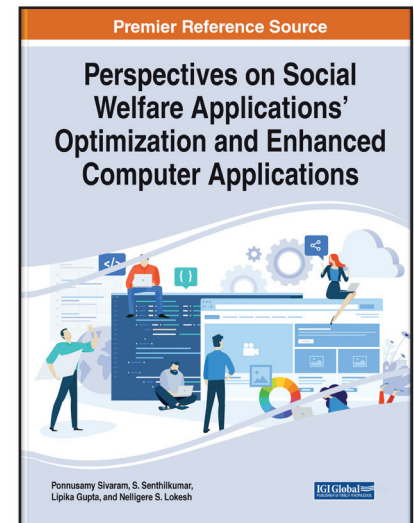# Perspectives on Social Welfare Applications' Optimization and Enhanced Computer Applications

Part of the Advances in Web Technologies and Engineering Book Series

Ponnusamy Sivaram (Bharat Institute of Engineering and Technology, India), S. Senthilkumar (University College of Engineering, India), Lipika Gupta (Chitkara University, India) and Nelligere S. Lokesh (Presidency University, India)

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Perspectives on Social Welfare Applications' Optimization and Enhanced Computer Applications

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IGI Global

Description:

Researchers are increasingly using machine learning (ML) models to analyze data and simulate complex systems and phenomena. Small-scale computing systems used for training, validation, and testing of these ML models are no longer sufficient for grand-challenge problems characterized by large volumes of data generated at a much higher rate than before, surpassing by far the computing capabilities currently available in many cyberinfrastructure platforms. By associating high-performance computing (HPC) with ML environments, scientists and engineers would be able to enhance not only the scalability but also the performance of their predictive ML models.

Perspectives on Social Welfare Applications' Optimization and Enhanced Computer Applications presents recent research efforts in designing and using ML techniques on HPC systems and discusses some of the results achieved thus far by cutting-edge relevant contributions. Covering topics such as data analytics, deep learning, and networking, this major reference work is ideal for computer scientists, academicians, engineers, researchers, scholars, practitioners, librarians, instructors, and students.

ISBN: 9781668483060   **Pages:** 310   **Copyright:** 2023   **Release Date:** June, 2023

Hardcover: $270.00   **Softcover: $205.00**   **E-Book: $270.00**   **Hardcover + E-Book: $325.00**

Topics Covered:

- Analytics
- Data Analytics
- Deep Learning
- High-Performance Computing Systems
- Machine Learning
- Networking
- Parallelization
- Simulations
- Storage Requirements
- Workflows

Subject: Computer Science and Information Technology

Classification: Edited Reference

Readership Level: Advanced-Academic Level (Research Recommended)

Research Suitable for: Advanced Undergraduate Students; Graduate Students; Researchers; Academicians; Professionals; Practitioners