

عنوان مقاله:

Feature selection for Protein Fold Recognition using Vortex search algorithm

محل انتشار:

سومین کنفرانس سیستم های تصمیم گیری هوشمند (سال: 1397)

تعداد صفحات اصل مقاله: 11

نویسندگان:

Elham Hekmatnia - *Department of Computer Engineering, School of Engineering, Azad University, Science and Research Branch*

Hedieh Sajedi - *Department of Computer Science, School of Mathematics, Statistics and Computer Science, College of Science, University of Tehran*

Ali Habib Agahi - *Department of Computer Engineering, School of Engineering, Azad University, South Tehran Branch*

خلاصه مقاله:

Feature selection is one of the most important steps of pre-processing data, which aims to select a subset of relevant features. On the other hand, extracting effective features is one of the challenges in protein fold recognition. In this paper, we propose a feature selection method based on Vortex Search Algorithm (VSA). In addition, Map/Reduce framework has been implemented as a speedup technique to feature selection. In the proposed method, in each step of map function, VSA is employed to find an optimization subset of features, and map and reduce functions are executed in parallel mode. Finally, we evaluated the proposed method in classification of a benchmark dataset for protein fold recognition. The experimental results indicate that the proposal method improves prediction accuracy by ~10%.

کلمات کلیدی:

feature selection, vortex search algorithm, Map/Reduce, protein folding recognition

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/855041>

