

Determining the Eligibility of Candidates for a Vacancy Using Artificial Neural Networks

Publisher: IEEE

[Maksym Lupei](#); [Alexander Mitsa](#); [Igor Povkhan](#); [Vasyl Sharkan](#)

Abstract

Document Sections

- I.

INTRODUCTION
- II.

PROBLEM STATEMENT
- III.

REVIEW OF THE LITERATURE
- IV.

MATERIALS AND METHODS
- V.

EXPERIMENTS

[Show Full Outline](#)

[Authors](#)

[Figures](#)

[References](#)

[Keywords](#)

[Metrics](#)

Abstract:

With the development of technology, new methods are being created to solve various tasks. Methods that use artificial neural networks (ANN) have become part of our routine and are very rapidly rooted in the Internet and computers. This work uses modern achievements in the ANN and methods of their training to solve the problem of correlations between objects, namely, vacancies and candidate information. The task of recruiting staff to expand or upgrade their staff has been and still is today. With the development of the Internet, this task has made new sense, because many resumes are scattered across different web services. So the question is: How do employers review and process information on all job applicants? This is what artificial neural networks will help, because with their help this process can be completed several times faster. Methods that use artificial neural networks (ANN) have become part of our routine and are very rapidly rooted in the Internet and computers. This work uses modern achievements in the ANN and methods of their training to solve the problem of correlations between the objects, namely a vacancy and information

about a candidate. A vast array of data is processed and relations between the specific components are discovered. The suggested approach can be used not only for this specific task but also for a whole class of similar tasks like classification and pattern recognition. All these tasks can be solved with different ANN parameters which should be configured for every particular set of data. There are many ways to improve. From input text normalization and different vectorization algorithms to ANN topology, parameters, and training algorithms. Considered ANN and its parameters with chosen training algorithm works with high accuracy level only for tasks described in this paper. For every other task, there is a need to experimentally and theoretically proven other parameters and topology to reach high accuracy.

(View less)

Published in: [2020 IEEE Third International Conference on Data Stream Mining & Processing \(DSMP\)](#)

Date of Conference: 21-25 Aug. 2020

Date Added to IEEE Xplore: 23 September 2020

ISBN Information:

INSPEC Accession Number: 20003755

Publisher: IEEE

Conference Location: Lviv, Ukraine, Ukraine