

ABSTRACT

Explanatory note size – 114 pages, contains 23 illustrations, 20 tables, 3 applications, 21 references.

Topicality. Examines the problem of recommendations for selecting an educational activity direction based on large linguistic models. It highlights the main features of existing solutions for recommending educational directions, their advantages, and disadvantages. The need for improving the process of selecting extracurricular activities for individuals based on their preferences, talents, and inclinations is identified, with a focus on reducing the time spent on choosing activities aligned with personal interests.

The aim of the study. The main target is to improve the process of selecting extracurricular activities for individuals based on their preferences, talents, and inclinations, by reducing the time spent on choosing activities that align with their interests.

The object of research: software for selecting extracurricular activities.

The subject of research: methods for creating a recommendation system for selecting extracurricular activities based on large linguistic models.

To achieve this goal, the **following tasks** were formulated:

- Conduct a comparative analysis of software used for selecting and attending extracurricular activities;
- Develop a solution architecture based on the requirements identified from the comparative analysis;
- Design and implement a solution in accordance with the developed architecture;
- Evaluate the effectiveness of the proposed software.

The scientific novelty of the results of the master's dissertation is the proposed method for determining the most suitable field of activity for individuals based on a natural language description of their preferences, interests, and activities. This result was achieved through the development of appropriate software.

The practical value of the obtained results is the design and development of software for selecting educational activity directions based on large linguistic models, implemented as an online resource. This resource can be used both by individuals offering extracurricular activities and those seeking them.

Relationship with working with scientific programs, plans, topics. Work was performed at the Department of Informatics and Software Engineering of the National Technical University of Ukraine «Kyiv Polytechnic Institute. Igor Sikorsky».

Approbation. The scientific propositions of the dissertation were tested at the VII International Scientific and Practical Conference of Young Scientists and Students "Software Engineering and Advanced Information Technologies" (SoftTech-2024), Kyiv.

Publications. The scientific provisions of the dissertation were published in:

- 1) Lishchuk K. I., Rodionov P. Yu., Tkachenko V. V. Practical aspects of developing software for selecting educational activity directions. *Science and Technology Today*. 2024. Vol. 40, No. 12. – pp. 1326–1336 (Category B).
- 2) Tkachenko V. V., Rodionov P. Yu. The use of brokers in the development and updating of software. *Proceedings of the VII International Scientific and Practical Conference of Young Scientists and Students "Software Engineering and Advanced Information Technologies" (SoftTech-2024)*. Kyiv, Ukraine, November 20–22, 2024. pp. 109–112.

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