

## **ABSTRACT**

VIRTUAL ASSISTANT OF THE COMPANY'S SUPPORT SERVICE BASED ON LOCAL LLM: diploma project / Bowaye Dilomba Aristote. – Gomel: ГГТУ им. П.О. Сухого, 2025. – Diploma project: [144] pages, [24] figures, [7] tables, [7] sources, [2] appendices.

Keywords: virtual assistant, local LLM, support service, natural language processing, chatbot, customer support, TinyLlama.

The object of development is a virtual assistant for the company's support service based on a local LLM.

The aim of the work is to create a virtual assistant for the company's support service based on a local LLM to improve customer service efficiency and reduce support costs.

The stages of the work consist of: an analytical review of existing virtual assistants, an overview of LLMs, selection of development tools, data transfer methods, database structure, design and development of the virtual assistant, testing the application, performing an economic calculation and justifying the profitability of the development, analyzing the implementation of the development from the point of view of energy and resource conservation issues, and implementing the application in AS-SISTNEXUS.

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