Design And Implementation Of Low-code Model-building Methods

Authors: Zhilin Wang, Zhihao Zheng, Linxin Liu

Abstract : This study proposes a low-code model-building approach that aims to simplify the development and deployment of artificial intelligence (AI) models. With an intuitive way to drag and drop and connect components, users can easily build complex models and integrate multiple algorithms for training. After the training is completed, the system automatically generates a callable model service API. This method not only lowers the technical threshold of AI development and improves development efficiency but also enhances the flexibility of algorithm integration and simplifies the deployment process of models. The core strength of this method lies in its ease of use and efficiency. Users do not need to have a deep programming background and can complete the design and implementation of complex models with a simple drag-and-drop operation. This feature greatly expands the scope of AI technology, allowing more non-technical people to participate in the development of AI models. At the same time, the method performs well in algorithm integration, supporting many different types of algorithms to work together, which further improves the performance and applicability of the model. In the experimental part, we performed several performance tests on the method. The results show that compared with traditional model construction methods, this method can make more efficient use, save computing resources, and greatly shorten the model training time. In addition, the system-generated model service interface has been optimized for high availability and scalability, which can adapt to the needs of different application scenarios.

Keywords: low-code, model building, artificial intelligence, algorithm integration, model deployment **Conference Title:** ICSLP 2024: International Conference on Speech and Language Processing

Conference Location: San Francisco, United States

Conference Dates: November 04-05, 2024