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Student I.A. Starovoitov
Scientific supervisor Senior Lecturer E.V. Kryvonosova
(Department of Intercultural Communication and Technical Translation, BSTU)

THE USE OF TENSORBOARD FOR VISUALIZATION AND COLLABORATIVE DEVELOPMENT

The widespread development and application of machine learning models has forced the creation of utilities needed to monitor the state of the model and the results obtained. One such utility is TensorBoard, a set of tools for the visualization and monitoring of the state of machine learning models.

TensorBoard is a visualization and debugging tool developed for TensorFlow. It helps developers analyze and understand the workflow paths and processes during model training. TensorBoard provides real-time monitoring and visualization of multiple metrics with a wide range of tools. Another benefit is the visualization of model architecture and calculation graphs. TensorBoard provides the ability to publish model training results to the web, allowing deep learning developers to share information and training results with others. It can be used in scientific research, industrial projects, and for training and demonstrating model operation. Being tightly integrated with TensorFlow, it uses data to visualize computational graphs, model weights, and other metrics.

TensorBoard is a powerful tool for demonstrating model training results and sharing information with other developers. It allows creating interactive deep learning model training reports that can be published online. TensorBoard provides the ability to create interactive visualizations to analyze data and learning results, plotting losses, accuracy, learning rates, and other metrics to better understand how changes in learning parameters affect model quality.

Results can be published in a variety of formats, such as HTML or JSON, which can be useful for reporting tasks.

TensorBoard provides a faster and easier way to develop and debug machine learning models built with the TensorFlow library. Data visualization gives developers the ability to track changes in model performance during training, while publishing results and generating reports allows users to share information from TensorBoard.

REFERENCES

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