

LLM integration into EPICS

Thursday 29 August 2024 16:00 (2 hours)

The utilization of large language models (LLMs) such as ChatGPT has seen a remarkable increase in various fields over the past few years. These models have demonstrated their versatility and capability in understanding and generating human-like text, making them invaluable tools in numerous applications. In this project, we explore the integration of a LLM into the Experimental Physics and Industrial Control System (EPICS). The primary focus of this integration is to employ the LLM for advanced image processing and spatial analysis on images obtained from the beamlines. By leveraging the capabilities of the LLM, we aim to enhance the accuracy and efficiency of image interpretation, enabling more precise data analysis and decision-making within the EPICS framework. This integration not only showcases the potential of LLMs in scientific and industrial applications but also sets the stage for future advancements in automated control systems.

Footnotes

Funding Agency

Primary author: ADAMS, Ethan (Oak Ridge National Laboratory)

Co-author: SOBHANI, Bayan (Oak Ridge National Laboratory)

Presenter: GOFRON, Kazimierz (Oak Ridge National Laboratory)

Session Classification: Thursday Poster Session

Track Classification: MC4: Technology: MC4.5 Other technology