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| Today, I shared the final version of the artificial intelligence–based anomaly detection system I have been developing with the supervising officer. The system can now adapt more flexibly to different time intervals and data types. In particular, in the modules working with hourly temperature data, the outputs of autoencoder models trained specifically for each time interval can be interpreted more accurately. In this way, the system has become capable of easily adapting not only to certain data types but also, with its extensible structure, to other sensor data.  I also made significant progress in prompt engineering. The prompts used in the LLM-supported analysis system have been optimized. Now, natural language explanations more clearly express the causes of anomalies. This has increased the human interpretability of the system outputs and made interpretation easier.  However, the weakest point of the system is still the delays on the LLM side. I researched various ways to run the Ollama framework with CUDA support on Linux and examined documentation, forums, and example applications on the subject. In the current situation, since the GPU is not being used, the LLM response time is quite long. This causes delays in real-time anomaly detection. Once CUDA execution is achieved, this problem will largely be eliminated and the system’s performance will increase significantly. | | | |
| **Sayfa No** | **Çalışmanın** | | **KONTROL** |
|  | Konusu :.........................................  ......................................................... | Yapıldığı Tarih  ...../..../202.. | ......................................  ...................................... |