

Master Thesis Proposal

Efficient Data-Driven Fault Classification of Batch Data using Fast Nearest Neighbor Search Algorithms

In a previous research project, we have developed a data-driven classifier for fault diagnosis of time-series data by comparing the distribution of new data with previous realizations of different fault scenarios. When logging data from many different realizations of each fault class, new data to be classified needs to be compared with all previous observations. In this master thesis project, the goal is to investigate how to speed up the proposed methods using efficient search algorithms to find which distributions in training data that are most similar to test data.

We are looking for students with skills in data analysis, signal processing, programming, and machine learning. There are also possibilities to conduct experiments and collect real data using one of the engines in the engine lab.

If you are interested or have questions, please feel free to mail me:

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or come by my office in the vehicular systems corridor (B-building behind Café Java).