

Anomaly Detection and Attack Classification in Industrial IoT Networks Using the WUSTL-IIoT-2021 Dataset

Course: Tools and Techniques

Project Type: Term Project

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Submission Date: 08-12-2025

Problem Statement

Intrusion detection systems for IoT networks face two challenges i.e. the cost and difficulty of manually labeling large and complex datasets and constant emergence of new attacks, also called zero-day attacks, that can bypass traditional defences. Since new attack types are missing from training data, existing systems fail to recognize them, while the problem of label scarcity makes attack classification difficult. Therefore, a hybrid system is required that can accurately perform classification in limited labeled data and at the same time can also detect zero-day intrusions.