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ASSIGNMENT OF BACHELOR'S THESIS

Title:	Memory efficient cluster representations in non-metric spaces.
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Study Programme:	Informatics
Study Branch:	Computer Security and Information technology
Department:	Department of Computer Systems
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Instructions

The goal of this thesis is to create a memory efficient representation of network host behavioural clusters used in the Cognitive targeted anomaly detection framework. The used behavioural similarity measure does not form a metric space. Therefore the non-metric cluster representation is needed.
Study the state-of-the-art literature on the topic of cluster representations in non-metric spaces.
Create benchmark datasets and use them to compare the memory and computational requirements of existing methods for cluster representations in non-metric spaces.
Analyze the results, select the best method, and incorporate it into the Cognitive targeted anomaly detection framework and fine-tune its parameters for the network security domain.

References

Will be provided by the supervisor.

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