

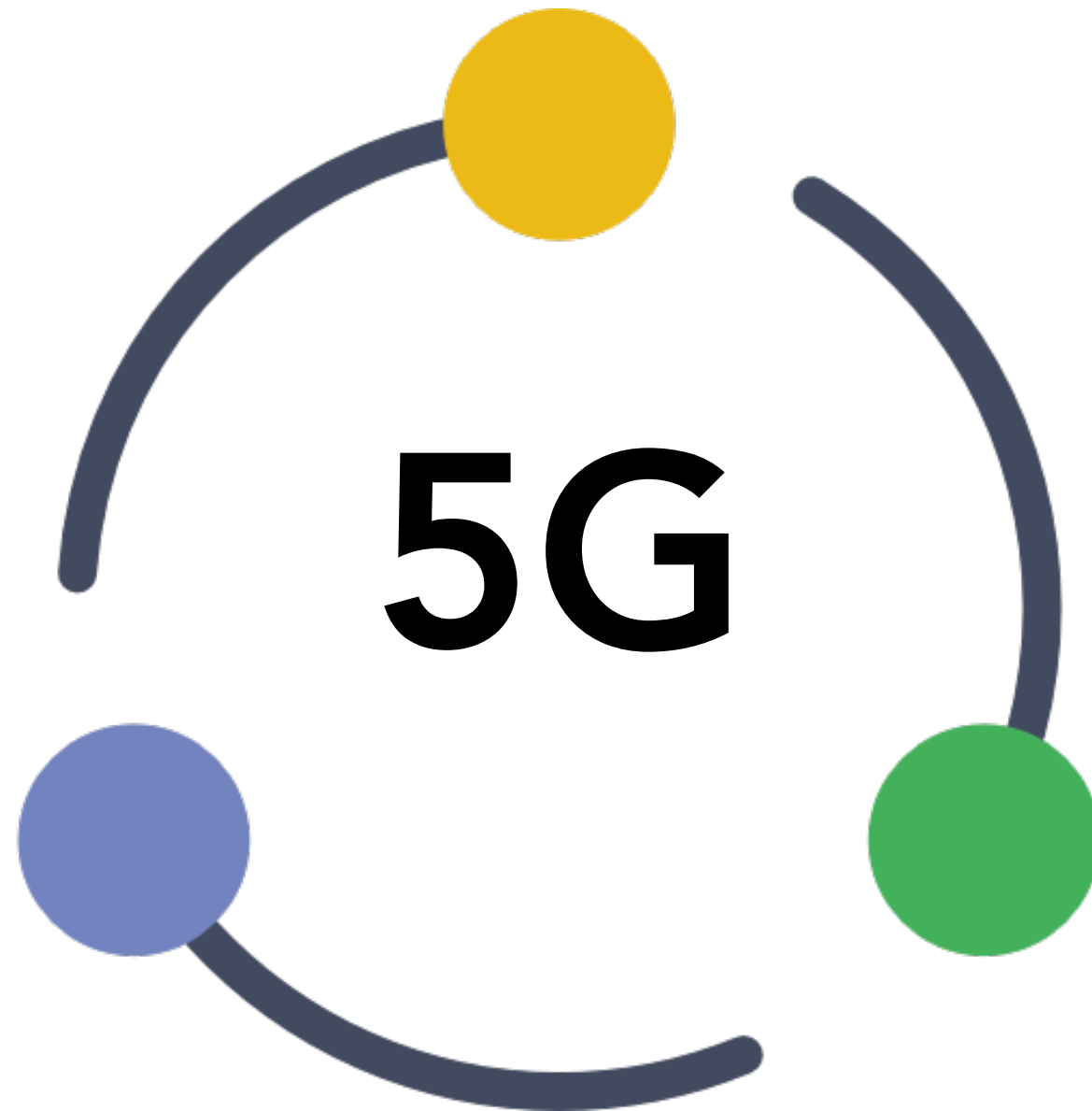
# A Deep Learning based Intrusion Detection System for 5G Networks

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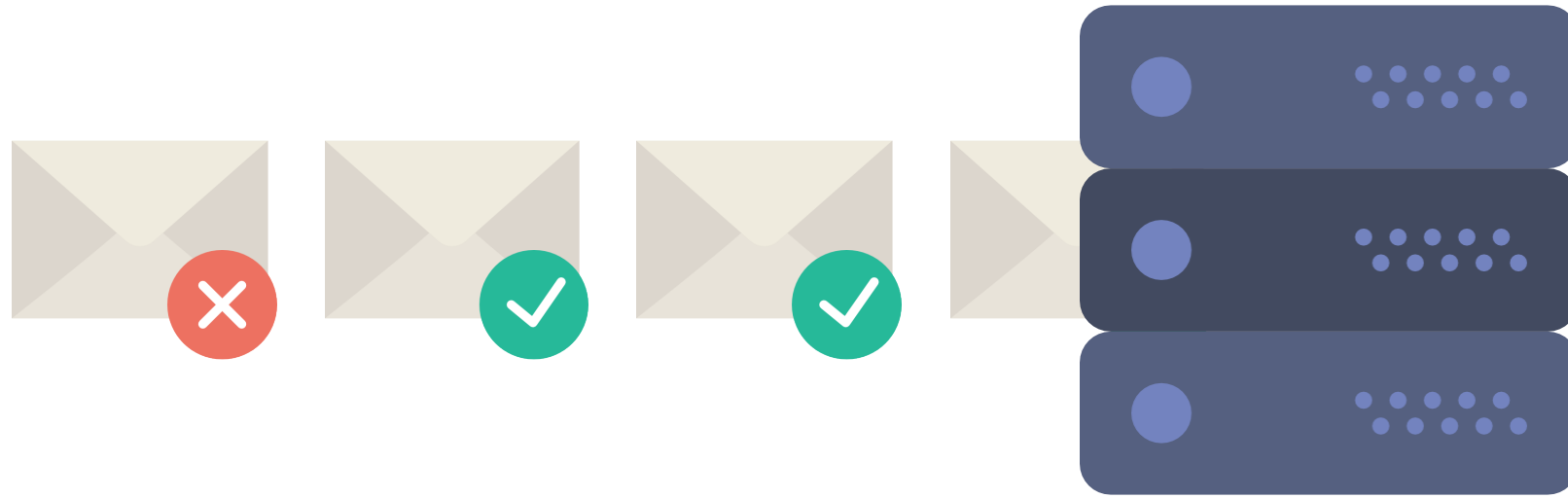
**Goal:** create an intrusion detection system using deep learning techniques, which is able to meet requirements of the next generation of mobile networks

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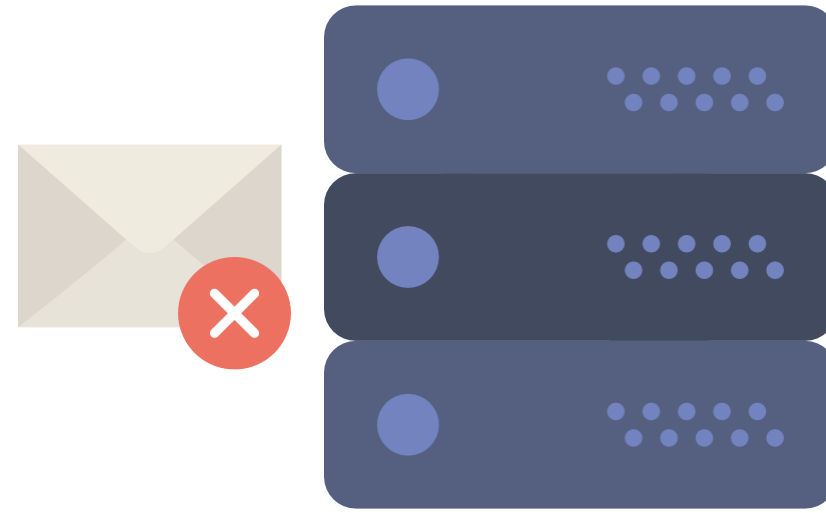
# Background



# Problem



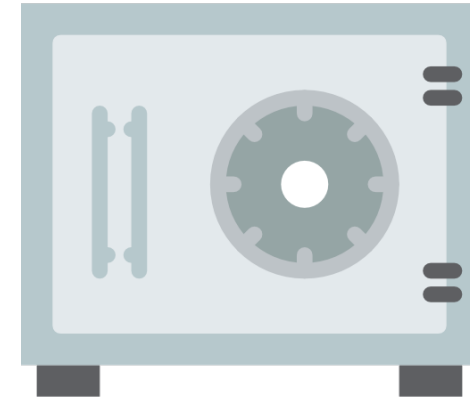
# Problem



# Ethics & Sustainability



Privacy



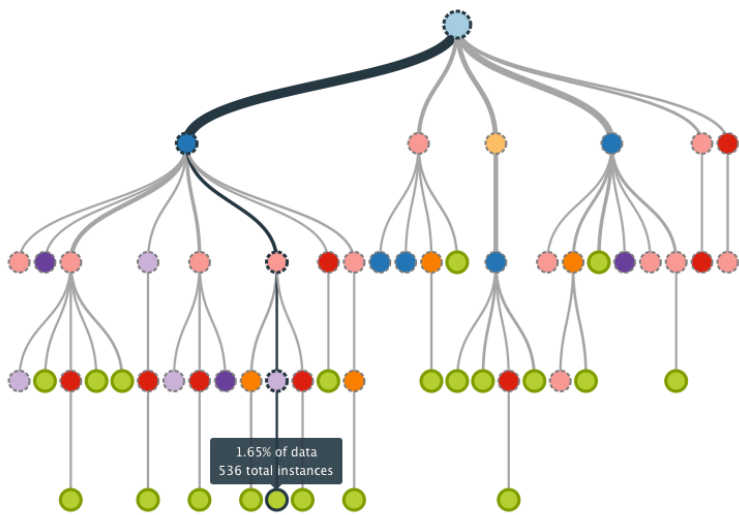
Security

# The Dataset

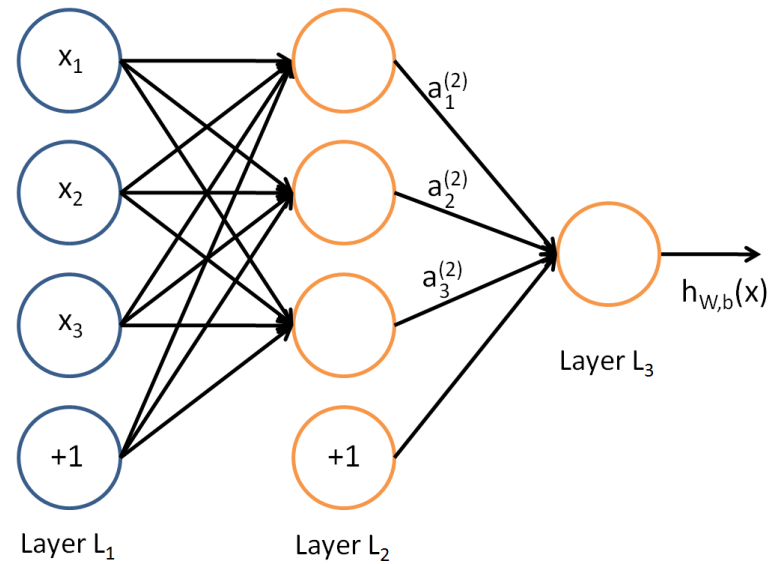


NSL-KDD

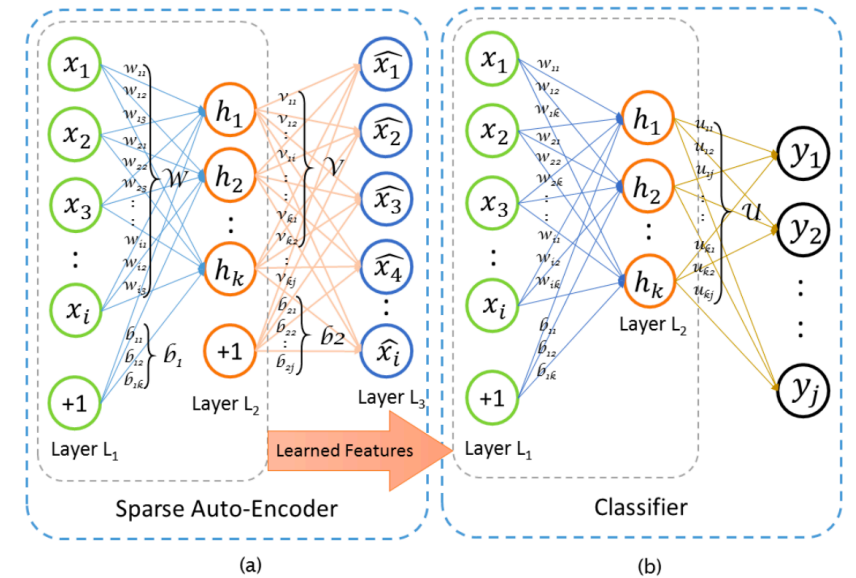
# Related Work



Random Forest



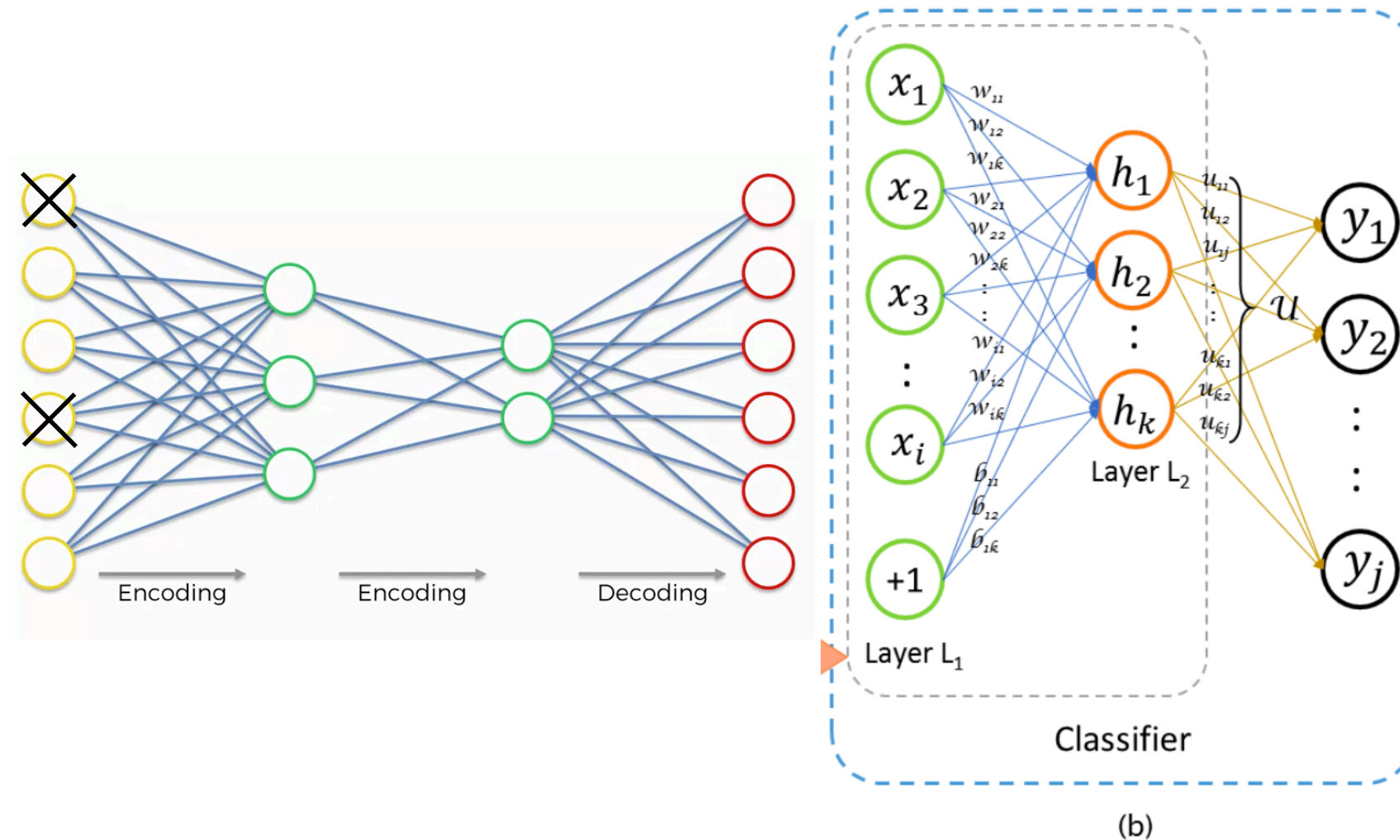
ANN



Sparse  
AutoEncoder

ANN

# Method

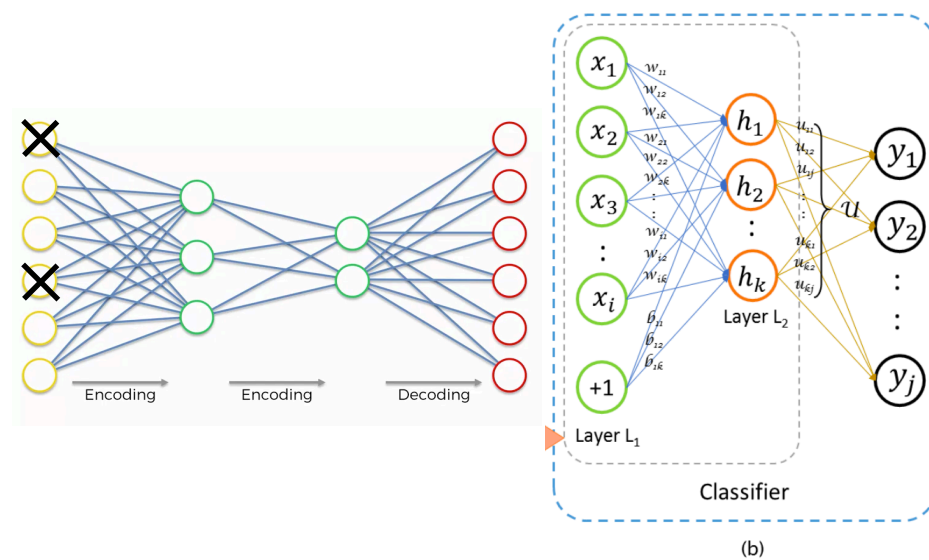
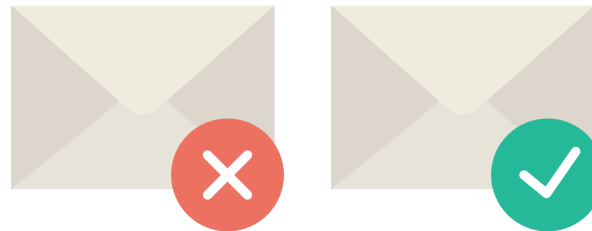


Stacked Denoising  
AutoEncoder

Softmax Regression

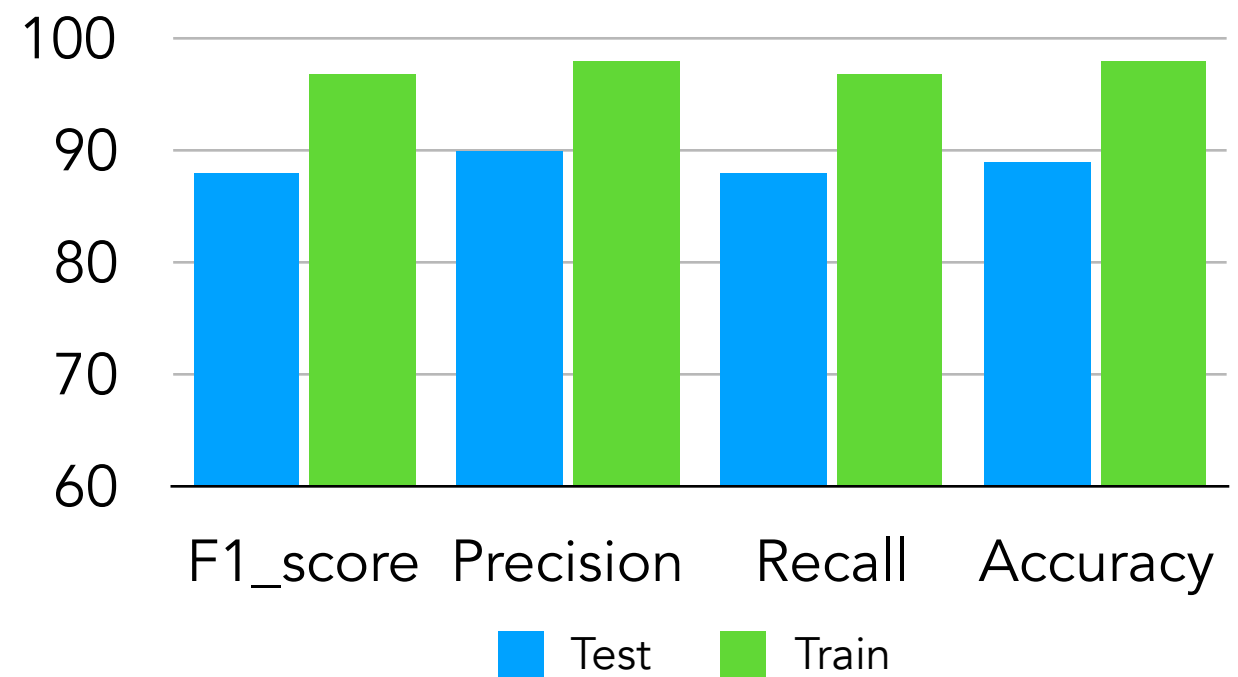


# Results



Stacked Denoising AutoEncoder      Softmax Regression

Accuracy Metrics in %





Thank you for your attention

**Q&A**

Stockholm  
December 11, 2017