MASTER THESIS

Detection of Smart Card Security Leakages Based on Deep Learning

submitted by Johannes T. Brandau, 27.03.2020

GitHub: https://github.com/jbrandau/master-thesis

CD-Index

Data	Directory	Description
Master-Thesis:	1_Thesis/	Master-Thesis
Simulated Traces:	2_Simulated_Traces/	Simulated traces
Data Generation:	2_1_Data_Generation/	Generation of the simulated traces
Experiments:	2_2_Experiments/	Directory of the experiments of the real traces
T-Test:	2_2_1_T-Test/	T-Test of the simulated traces
DL-LA:	2_2_2_DL-LA/	DL-LA of the simulated traces
Real Traces:	3_Real_Traces/	Real Traces
Data analysis:	3_1_Data_analysis/	Set up and analyse the measurement
Chip Implementation	3_2_Chip_Implementation/	Implementation of AES in the microcontroller

Measurement:	3_3_Measurement/	Scripts to measure the traces and the grid search
Experiments:	3_4_Experiments/	Directory of the experiments of the real traces
Data Analysis:	3_4_1_Data_Analysis/	Analyse the data and traces
Correlation Attack:	3_4_2_Correlation_Attack/	Correlation attack of traces
SNR:	3_4_3_SNR/	Calculation of the signal to noise ratio
T-Test:	3_4_4_T-Test/	T-Test of the real traces
DL-LA:	3_4_5_DL-LA/	DL-LA of the real traces