SGEMM GPU Kernel Performance

(Regression)

# Project Discription

## Business Context

## This data set measures the running time of a matrix-matrix product

## A∗B=C, where all matrices have size 2048 x 2048, using a parameterizable SGEMM GPU kernel with 241600 possible parameter combinations. For each tested combination, 4 runs were performed and their results are reported as the 4 last columns. All times are measured in milliseconds\*.

## There are 14 parameters, the first 10 are ordinal and can only take up to 4 different powers of two values, and the 4 last variables are binary. Out of 1327104 total parameter combinations, only 241600 are feasible (due to various kernel constraints). This data set contains the results for all these feasible combinations.

## The experiment was run on a desktop workstation running Ubuntu 16.04 Linux with an Intel Core i5 (3.5GHz), 16GB RAM, and a NVidia Geforce GTX 680 4GB GF580 GTX-1.5GB GPU. We use the 'gemm\_fast' kernel from the automatic OpenCL kernel tuning library 'CLTune' ([Web Link]).

Note: for this kind of data sets it is usually better to work with the logarithm of the running times

## **Data Description:-**

