Typical directory structure of an experimental pack shared for Artifact Evaluation

Initialization, customization → Algorithm, model, training set → Program → Compiler → Binary and libraries

State of the system, Data set → Run-time environment → Results → Analysis

Simulator, Hardware
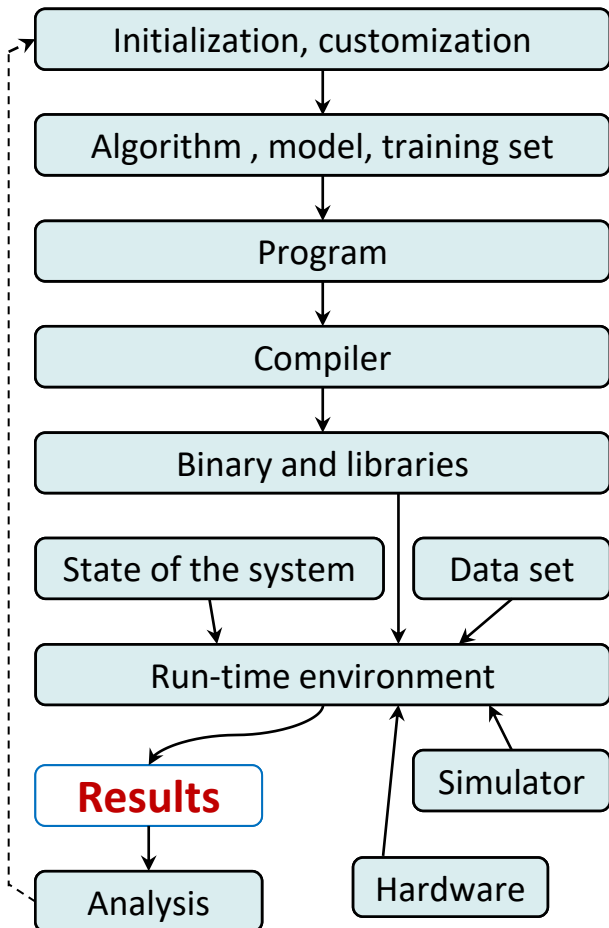
scripts/
- download_dataset.sh
- download_dnn_model.bat
- init_setup_rpi3_gcc7.1.0.sh
- init_setup_windows10.bat
- init_setup_android.sh
- list_programs.sh
- compile_program.py
- run_program.py
- analyze_results.sh
- build_predictive_model.bat
- plot_graph.sh

programs/
- bzip2
- classify-image
- decode-video-stream

datasets/
- jpg-images/ 1.jpg, 2.jpg, 3.jpg
- png-images
- videos

third-party-tools/
- gcc-7.1.0
- llvm-4.0
- opencl-profiler , cuda-profiler
- arch-simulator
- caffe, caffe2, tensorflow, cntk, mxnet
- clbast, open-blas, viennacl, libdnn

some-meta/
- gcc-7.1.0-compiler-flags.txt
- llvm-4.0-compiler-flags.txt
- rpi3-hw-description.txt

some-results/
- reference-speedups.txt
- predictions.cvs
- graph-autotuning-rpi3.xls

Unified experimental pack in the CK format

.ckr.json *- CK repo name, UID and deps on other CK repos*

module/ **program** / module.py – *unified CK JSON API (functions: compile, run, autotune)*

dataset
package
result
jnotebook

.cm/ *- UIDs for each CK module*

program/
- bzip2
- bzip2/.cm/meta.json *- JSON meta for all CK entries*
- bzip2/ *.c – program sources*
- classify-image
- decode-video-stream

.cm *- UIDs for each CK entry (similar to DOI)*

dataset/
- image-jpeg-0001
- video-frame-0001

package/
- compiler-gcc-7.1.0
- compiler-llvm-4.0
- tool-dvdt-proof
- lib-caffe-master-cpu
- lib-tensorflow-master-opencl

result/
- cgo2017-paper
- zlib-autotuning-rpi3

jnotebook/
- cgo2017-workflow
- cgo2017-graph
- rpi3-gcc-autotuning