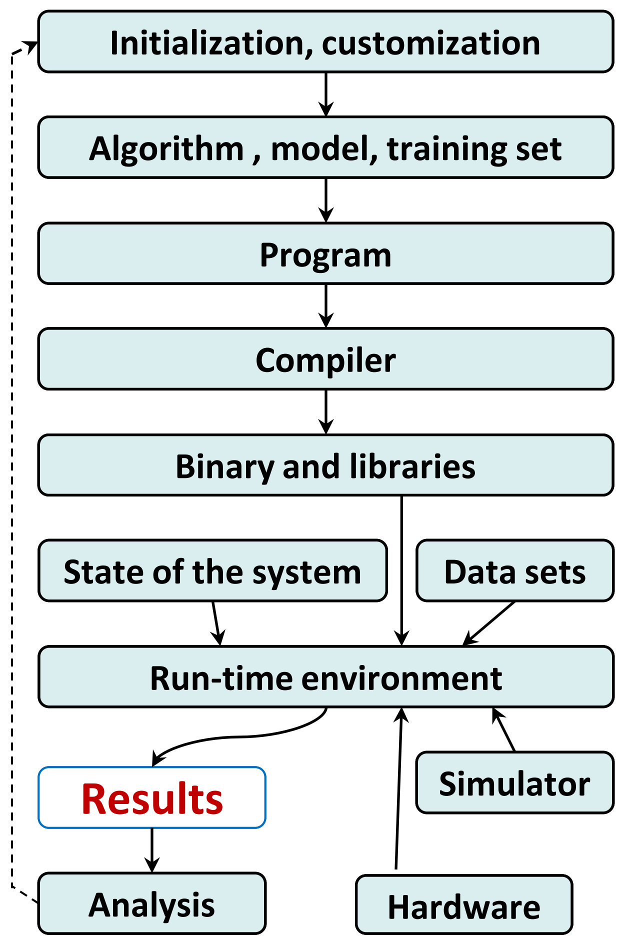
Typical directory structure of an ad-hoc experimental pack shared for Artifact Evaluation

Experiment workflow



```
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, openblas, 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
```

(a)

Organize objects with common actions and meta info into discoverable, reusable and shareable entries with auto-generated Unique ID, JSON meta data and Python module (wrapper) with unified JSON API

Example:

Programs
zlib,bzip2,susan,caffe,tensorflow
has common actions:
compile, run, autotune

Convert code and data into CK repo (2 main dir. levels)

1 level (API)	**2 level (entry)**	
.ckr.json		- *CK desc including deps on other repos*
module	**/program**	/module.py – *unified CK JSON API (functions: compile, run, autotune)*
must be the same		/**.cm**/meta.json – *JSON description of a program module*
program	**/zlib**	/*.c … - *program sources, build files*
		/**.cm**/meta.json - *JSON desc of zlib*
	/.cm	/* - *UID for zlib*
.cm	/*	- *UIDs for module and program*

(b)