Domain Specific Languages

DSL → PENCIL compilers

PENCIL - Platform-Neutral Compute Intermediate Language

Direct PENCIL programming (hand written PENCIL code)

Optimising, auto-parallelising PENCIL → OpenCL compiler

Direct OpenCL programming

OpenCL

GPUs (Nvidia, AMD, ARM, ...)

CPUs (Intel, AMD, ...)

FPGAs (Altera, Xilinx ...)

...

Other accelerators

An OpenCL code specialized for a given platform is generated