

build_scripts/build_OpenBLAS.sh

```
#!/usr/bin/bash

set -ex

# https://github.com/OpenMathLib/OpenBLAS/releases
VERSION="0.3.34"
TMP_DIR="$(mktemp --directory --tmpdir tmp.OpenBLAS.XXXXXXX)"
SRC_DIR="${TMP_DIR}/OpenBLAS-${VERSION}"
BUILD_DIR="${TMP_DIR}/OpenBLAS-build"

# Prepare
wget \
  --no-verbose \
  --output-document=- \
  https://github.com/OpenMathLib/OpenBLAS/archive/refs/tags/v${VERSION}.tar.gz |
  tar --extract --gunzip --directory="${TMP_DIR}"

# See: https://github.com/OpenMathLib/OpenBLAS/blob/develop/TargetList.txt
ARCH_EXPLICIT_FLAGS=(
  -DTARGET=ZEN
  -DDYNAMIC_ARCH=OFF
)

ARCH_NATIVE_FLAGS=(
  -DTARGET=NATIVE
  -DDYNAMIC_ARCH=OFF
)

ARCH_DYNAMIC_FLAGS=(
  -DTARGET=GENERIC
  -DDYNAMIC_ARCH=ON
  -DNUM_THREADS=64
)

# Configure
cmake \
  -DCMAKE_BUILD_TYPE=Release \
  -DCMAKE_INSTALL_PREFIX=/opt/OpenBLAS \
  "${ARCH_NATIVE_FLAGS[@]}" \
  -DBUILD_SHARED_LIBS=ON \
  -DBUILD_STATIC_LIBS=ON \
  -DUSE_OPENMP=1 \
  -B "${BUILD_DIR}" -S "${SRC_DIR}"

# Build
cmake --build "${BUILD_DIR}" --parallel $(nproc)

# Install
cmake --install "${BUILD_DIR}"

# Clean
rm -r "${TMP_DIR}"
```