

Packaging the K2 inference script docker

1. Base image:
 - a. Use a nvidia cuda image as a base image.
 - b. Ensure to use the devel version for further building the docker image on it.
 - c. The CUDA version that worked for pytorch 1.13 was 11.5
2. System packages:
 - a. Always update the apt-get package first
 - b. Then install the following packages in the same command:
 - i. libblas-dev
 - ii. liblapack-dev
 - iii. ffmpeg
 - iv. libsm6
 - v. libxext6
 - vi. gfortran
 - vii. git
 - viii. python3
 - ix. python3-dev
 - x. python3-pip
 - c. The first 2 packages are required for installing correctly and creating wheels for the spams package.
 - d. System packages 3-6 are necessary for correct installation of opencv-python packages.
3. Python packages:
 - a. Install the pytorch package separately as it has a complex installation.
 - b. All the required packages are listed in the requirements.txt
4. Prediction files:
 - a. Copy the prediction files from the k2_inf folder into the container.
 - b. Model weights and data files are not present on github due to size constraints.