"""

Parameters used in ClemNet.

"""

from typing import List, Optional

from pydantic import BaseModel, Extra, Field, PositiveInt

# checkstyle: noqa

class ExtendedBaseModel(BaseModel):

class Config:

extra = Extra.forbid

class DenseParams(ExtendedBaseModel):

name: Optional[str]

bias\_initializer: str = "zeros"

kernel\_initializer: str = "glorot\_uniform"

output\_size: PositiveInt

use\_bias: bool = Field(True)

class ConvParams(ExtendedBaseModel):

name: Optional[str]

bias\_initializer: str = "zeros"

filters: PositiveInt

kernel\_initializer: str = "glorot\_uniform"

kernel\_size: PositiveInt

padding: str = "SAME"

strides: PositiveInt = 1

use\_bias: bool = Field(True)

class BlockParams(ExtendedBaseModel):

activation: Optional[str]

conv: Optional[ConvParams]

dense: Optional[DenseParams]

residual: Optional[bool]

class TopLayerParams(ExtendedBaseModel):

n\_labels: PositiveInt

class ClemNetParams(ExtendedBaseModel):

blocks: List[BlockParams] = []

top: Optional[TopLayerParams]