

Week_12_SaveAndPackage_Model

November 27, 2024

0.1 Save Model with torch.save

I have save the model during training on week 9 with torch.save

```
[58]: model_path = '../models/best_model17.pth'
```

0.2 Dependencies

```
[5]: import platform
import subprocess
import sys

# Generate environment report
def generate_environment_report(output_file="environment_info.txt"):
    with open(output_file, "w") as f:
        # OS Information
        os_info = f"OS: {platform.system()} {platform.version()} (Release:␣
↪{platform.release()})\n"
        f.write("# Environment Information\n\n")
        f.write("## Operating System\n")
        f.write(os_info + "\n")

        # Python Version
        python_version = sys.version
        f.write("## Python Version\n")
        f.write(python_version + "\n\n")

        # Installed Packages
        f.write("## Installed Python Packages\n")
        try:
            pip_freeze = subprocess.check_output([sys.executable, "-m", "pip",␣
↪"freeze"]).decode("utf-8")
            f.write(pip_freeze + "\n")
        except subprocess.CalledProcessError as e:
            f.write(f"Error fetching Python packages: {e}\n")

    print(f"Environment report saved to {output_file}")
```

```
# Run the function
generate_environment_report()
```

Operating System Information: {'OS': 'Linux', 'Version': '#27~22.04.1-Ubuntu SMP Tue Jul 16 23:03:39 UTC 2024', 'Release': '6.5.0-1025-gcp'}

```
[60]: with open("environment_info.txt", "r") as file:
        environment_info = file.read()

print(environment_info)
```

Environment Information

Operating System

OS: Linux #27~22.04.1-Ubuntu SMP Tue Jul 16 23:03:39 UTC 2024 (Release: 6.5.0-1025-gcp)

Python Version

3.10.10 | packaged by conda-forge | (main, Mar 24 2023, 20:08:06) [GCC 11.3.0]

Installed Python Packages

absl-py==2.1.0
alembic==1.13.2
anyio==4.4.0
apiclient==1.0.4
argon2-cffi==23.1.0
argon2-cffi-bindings==21.2.0
arrow==1.3.0
asttokens==2.4.1
astunparse==1.6.3
async-generator==1.10
async-lru==2.0.4
attrs==24.2.0
Automat==24.8.1
babel==2.16.0
beautifulsoup4==4.12.3
binaryornot==0.4.4
bleach==6.1.0
brewer2mpl==1.4.1
brotlipy @
file:///home/conda/feedstock_root/build_artifacts/brotlipy_1666764671472/work
cachetools==5.5.0
captum==0.7.0
certifi==2022.12.7
certipy==0.1.3
cffi @ file:///home/conda/feedstock_root/build_artifacts/cffi_1671179353105/work
chardet==5.2.0
charset-normalizer @ file:///home/conda/feedstock_root/build_artifacts/charset-

normalizer_1678108872112/work
click==8.1.7
colorama @
file:///home/conda/feedstock_root/build_artifacts/colorama_1666700638685/work
comm==0.2.2
conda==23.1.0
conda-package-handling @
file:///home/conda/feedstock_root/build_artifacts/conda-package-handling_1669907009957/work
conda_package_streaming @
file:///home/conda/feedstock_root/build_artifacts/conda-package-streaming_1669733752472/work
constantly==23.10.4
contourpy==1.2.1
cookiecutter==2.6.0
cryptography @ file:///home/conda/feedstock_root/build_artifacts/cryptography-split_1679811212387/work
cssselect==1.2.0
cyclr==0.12.1
debugpy==1.8.5
decorator==5.1.1
defusedxml==0.7.1
exceptiongroup==1.2.2
executing==2.0.1
fastjsonschema==2.20.0
filelock==3.15.4
flatbuffers==24.3.25
fonttools==4.53.1
fqdn==1.5.1
fsspec==2024.6.1
gast==0.6.0
gdown==5.2.0
gensim==4.3.3
ggplot==0.11.5
gitdb==4.0.11
GitPython==3.1.43
google==3.0.0
google-api-core==2.20.0
google-api-python-client==2.147.0
google-auth==2.35.0
google-auth-httpplib2==0.2.0
google-auth-oauthlib==1.2.1
google-pasta==0.2.0
googleapis-common-protos==1.65.0
greenlet==3.0.3
grpcio==1.65.5
h11==0.14.0
h5py==3.11.0

httpcore==1.0.5
httplib2==0.22.0
httpx==0.27.0
huggingface-hub==0.26.1
hyperlink==21.0.0
idna @ file:///home/conda/feedstock_root/build_artifacts/idna_1663625384323/work
ignite==1.1.0
imageio==2.35.1
incremental==24.7.2
ipykernel==6.29.5
ipython==8.26.0
ipywidgets==8.1.3
isoduration==20.11.0
itemadapter==0.9.0
itemloaders==1.3.1
jedi==0.19.1
Jinja2==3.1.4
jmespath==1.0.1
joblib==1.4.2
json5==0.9.25
jsonpointer==3.0.0
jsonschema==4.23.0
jsonschema-specifications==2023.12.1
jupyter-archive==3.4.0
jupyter-events==0.10.0
jupyter-lsp==2.2.5
jupyter-resource-usage==1.1.0
jupyter-server-mathjax==0.2.6
jupyter-telemetry==0.1.0
jupyter_client==8.6.2
jupyter_core==5.7.2
jupyter_server==2.14.2
jupyter_server_terminals==0.5.3
jupyterhub==4.1.6
jupyterlab==4.2.4
jupyterlab_git==0.50.1
jupyterlab_pygments==0.3.0
jupyterlab_server==2.27.3
jupyterlab_widgets==3.0.11
keras==3.5.0
kiwisolver==1.4.5
lazy_loader==0.4
libclang==18.1.1
libmambapy @ file:///home/conda/feedstock_root/build_artifacts/mamba-split_1680002410624/work/libmambapy
lxml==5.3.0
Mako==1.3.5
mamba @ file:///home/conda/feedstock_root/build_artifacts/mamba-

split_1680002410624/work/mamba
Markdown==3.7
markdown-it-py==3.0.0
MarkupSafe==2.1.5
matplotlib==3.9.2
matplotlib-inline==0.1.7
mdurl==0.1.2
mistune==3.0.2
ml-dtypes==0.4.0
mpmath==1.3.0
namex==0.0.8
nbclient==0.10.0
nbconvert==7.16.4
nbdime==4.0.1
nbformat==5.10.4
nbgitpuller==1.2.1
nest-asyncio==1.6.0
networkx==3.3
nltk==3.9.1
notebook==7.2.1
notebook_shim==0.2.4
numpy==1.26.4
nvidia-cublas-cu12==12.1.3.1
nvidia-cuda-cupti-cu12==12.1.105
nvidia-cuda-nvrtc-cu12==12.1.105
nvidia-cuda-runtime-cu12==12.1.105
nvidia-cudnn-cu12==9.1.0.70
nvidia-cufft-cu12==11.0.2.54
nvidia-curand-cu12==10.3.2.106
nvidia-cusolver-cu12==11.4.5.107
nvidia-cusparse-cu12==12.1.0.106
nvidia-nccl-cu12==2.20.5
nvidia-nvjitlink-cu12==12.6.20
nvidia-nvtx-cu12==12.1.105
oauthlib==3.2.2
opencv-python==4.10.0.84
opt-einsum==3.3.0
optree==0.12.1
overrides==7.7.0
packaging==24.1
pamela==1.2.0
pandas==2.2.2
pandocfilters==1.5.1
parsel==1.9.1
parso==0.8.4
patsy==0.5.6
pexpect==4.9.0
pillow==10.4.0

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platformdirs==4.2.2
plotly==5.23.0
pluggy @
file:///home/conda/feedstock_root/build_artifacts/pluggy_1667232663820/work
prometheus_client==0.20.0
prompt_toolkit==3.0.47
Protego==0.3.1
proto-plus==1.24.0
protobuf==4.25.4
psutil==5.9.8
ptyprocess==0.7.0
pure_eval==0.2.3
pyasn1==0.6.0
pyasn1_modules==0.4.0
pycosat @
file:///home/conda/feedstock_root/build_artifacts/pycosat_1666836542287/work
pyparser @
file:///home/conda/feedstock_root/build_artifacts/pyparser_1636257122734/work
pydataset==0.2.0
PyDispatcher==2.0.7
pydot==3.0.1
Pygments==2.18.0
pyOpenSSL @
file:///home/conda/feedstock_root/build_artifacts/pyopenssl_1680037383858/work
pyparsing==3.1.2
PySocks @
file:///home/conda/feedstock_root/build_artifacts/pysocks_1661604839144/work
python-dateutil==2.9.0.post0
python-json-logger==2.0.7
python-slugify==8.0.4
pytorchtools==0.0.2
pytz==2024.1
PyYAML==6.0.2
pyzmq==26.1.1
queuelib==1.7.0
referencing==0.35.1
regex==2024.7.24
requests==2.32.3
requests-file==2.1.0
requests-oauthlib==2.0.0
rfc3339-validator==0.1.4
rfc3986-validator==0.1.1
rich==13.7.1
rpds-py==0.20.0
rsa==4.9
ruamel.yaml @
file:///home/conda/feedstock_root/build_artifacts/ruamel.yaml_1678272977710/work
ruamel.yaml.clib @ file:///home/conda/feedstock_root/build_artifacts/ruamel.yaml

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```
.clib_1670412719074/work
safetensors==0.4.5
scikit-image==0.24.0
scikit-learn==1.5.1
scipy==1.13.1
Scrapy==2.11.2
seaborn==0.13.2
Send2Trash==1.8.3
service-identity==24.1.0
SimpleCV==1.3
six==1.16.0
smart-open==7.0.4
smmmap==5.0.1
sniffio==1.3.1
soupsieve==2.6
SQLAlchemy==2.0.32
stack-data==0.6.3
statsmodels==0.14.2
sympy==1.13.2
tenacity==9.0.0
tensorboard==2.17.1
tensorboard-data-server==0.7.2
tensorflow==2.17.0
tensorflow-io-gcs-filesystem==0.37.1
termcolor==2.4.0
terminado==0.18.1
text-unidecode==1.3
threadpoolctl==3.5.0
tiffiff==2024.8.10
tinycss2==1.3.0
tldextract==5.1.2
tokenizers==0.20.1
tomli==2.0.1
toolz @
file:///home/conda/feedstock_root/build_artifacts/toolz_1657485559105/work
torch==2.4.1
torchsummary==1.5.1
torchvision==0.19.1
tornado==6.4.1
tqdm @ file:///home/conda/feedstock_root/build_artifacts/tqdm_1677948868469/work
traitlets==5.14.3
transformers==4.46.0
triton==3.0.0
Twisted==24.7.0
types-python-dateutil==2.9.0.20240821
typing_extensions==4.12.2
tzdata==2024.1
uri-template==1.3.0
```

```
uritemplate==4.1.1
urllib3 @
file:///home/conda/feedstock_root/build_artifacts/urllib3_1678635778344/work
w3lib==2.2.1
wcwidth==0.2.13
webcolors==24.8.0
webencodings==0.5.1
websocket-client==1.8.0
Werkzeug==3.0.3
widgetsnbextension==4.0.11
wrapt==1.16.0
xgboost==2.1.1
zope.interface==7.0.1
zstandard==0.19.0
```

[]: