## Downloading and Extracting Packages:

```
Preparing transaction: done
Verifying transaction: done
Executing transaction: done
# To activate this environment, use
#
    $ conda activate pvcnn env
# To deactivate an active environment, use
#
    $ conda deactivate
Collecting open3d
 Downloading open3d-0.19.0-cp310-cp310-manylinux 2 31 x86 64.whl.metadata (4.3 kB)
Collecting numpy>=1.18.0 (from open3d)
 Downloading
numpy-2.2.6-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl.metadata (62
kB)
Collecting dash>=2.6.0 (from open3d)
 Downloading dash-3.0.4-py3-none-any.whl.metadata (10 kB)
Collecting werkzeug>=3.0.0 (from open3d)
 Downloading werkzeug-3.1.3-py3-none-any.whl.metadata (3.7 kB)
Collecting flask>=3.0.0 (from open3d)
 Downloading flask-3.1.1-py3-none-any.whl.metadata (3.0 kB)
Collecting nbformat>=5.7.0 (from open3d)
 Downloading nbformat-5.10.4-py3-none-any.whl.metadata (3.6 kB)
Collecting configargparse (from open3d)
 Downloading configargparse-1.7.1-py3-none-any.whl.metadata (24 kB)
Collecting ipywidgets>=8.0.4 (from open3d)
 Downloading ipywidgets-8.1.7-py3-none-any.whl.metadata (2.4 kB)
Collecting addict (from open3d)
 Downloading addict-2.4.0-py3-none-any.whl.metadata (1.0 kB)
Collecting pillow>=9.3.0 (from open3d)
 Downloading pillow-11.2.1-cp310-cp310-manylinux_2_28_x86_64.whl.metadata (8.9 kB)
Collecting matplotlib>=3 (from open3d)
 Downloading
matplotlib-3.10.3-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl.metadata
(11 kB)
Collecting pandas>=1.0 (from open3d)
 Downloading
pandas-2.3.0-cp310-cp310-manylinux 2 17 x86 64.manylinux2014 x86 64.whl.metadata (91
kB)
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Collecting pyyaml>=5.4.1 (from open3d) Downloading PyYAML-6.0.2-cp310-cp310-manylinux 2 17 x86 64.manylinux2014 x86 64.whl.metadata (2.1 kB)Collecting scikit-learn>=0.21 (from open3d) Downloading scikit learn-1.7.0-cp310-cp310-manylinux 2 17 x86 64.manylinux2014 x86 64.whl.metadata (17 kB) Collecting tgdm (from open3d) Downloading tgdm-4.67.1-py3-none-any.whl.metadata (57 kB) Collecting pyquaternion (from open3d) Downloading pyquaternion-0.9.9-py3-none-any.whl.metadata (1.4 kB) Collecting flask>=3.0.0 (from open3d) Downloading flask-3.0.3-py3-none-any.whl.metadata (3.2 kB) Collecting werkzeug>=3.0.0 (from open3d) Downloading werkzeug-3.0.6-py3-none-any.whl.metadata (3.7 kB) Collecting plotly>=5.0.0 (from dash>=2.6.0->open3d) Downloading plotly-6.1.2-py3-none-any.whl.metadata (6.9 kB) Collecting importlib-metadata (from dash>=2.6.0->open3d) Downloading importlib metadata-8.7.0-py3-none-any.whl.metadata (4.8 kB) Collecting typing-extensions>=4.1.1 (from dash>=2.6.0->open3d) Downloading typing extensions-4.14.0-py3-none-any.whl.metadata (3.0 kB) Collecting reguests (from dash>=2.6.0->open3d) Downloading requests-2.32.3-py3-none-any.whl.metadata (4.6 kB) Collecting retrying (from dash>=2.6.0->open3d) Downloading retrying-1.3.4-py3-none-any.whl.metadata (6.9 kB) Collecting nest-asyncio (from dash>=2.6.0->open3d) Downloading nest asyncio-1.6.0-py3-none-any.whl.metadata (2.8 kB) Requirement already satisfied: setuptools in /home/intern/miniconda3/envs/pvcnn\_env/lib/python3.10/site-packages (from dash>=2.6.0->open3d) (78.1.1) Collecting Jinja2>=3.1.2 (from flask>=3.0.0->open3d) Using cached jinja2-3.1.6-py3-none-any.whl.metadata (2.9 kB) Collecting itsdangerous>=2.1.2 (from flask>=3.0.0->open3d) Downloading itsdangerous-2.2.0-py3-none-any.whl.metadata (1.9 kB) Collecting click>=8.1.3 (from flask>=3.0.0->open3d) Downloading click-8.2.1-py3-none-any.whl.metadata (2.5 kB) Collecting blinker>=1.6.2 (from flask>=3.0.0->open3d) Downloading blinker-1.9.0-py3-none-any.whl.metadata (1.6 kB) Collecting MarkupSafe>=2.1.1 (from werkzeug>=3.0.0->open3d) Downloading MarkupSafe-3.0.2-cp310-cp310-manylinux\_2\_17\_x86\_64.manylinux2014\_x86\_64.whl.metadat

a (4.0 kB)

Collecting comm>=0.1.3 (from ipywidgets>=8.0.4->open3d)

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Downloading comm-0.2.2-pv3-none-anv.whl.metadata (3.7 kB)
Collecting ipython>=6.1.0 (from ipywidgets>=8.0.4->open3d)
 Downloading ipython-8.37.0-py3-none-any.whl.metadata (5.1 kB)
Collecting traitlets>=4.3.1 (from ipywidgets>=8.0.4->open3d)
 Downloading traitlets-5.14.3-py3-none-any.whl.metadata (10 kB)
Collecting widgetsnbextension~=4.0.14 (from ipywidgets>=8.0.4->open3d)
 Downloading widgetsnbextension-4.0.14-py3-none-any.whl.metadata (1.6 kB)
Collecting jupyterlab widgets~=3.0.15 (from ipywidgets>=8.0.4->open3d)
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Collecting decorator (from ipython>=6.1.0->ipywidgets>=8.0.4->open3d)
 Downloading decorator-5.2.1-py3-none-any.whl.metadata (3.9 kB)
Collecting exceptiongroup (from ipython>=6.1.0->ipywidgets>=8.0.4->open3d)
 Downloading exceptiongroup-1.3.0-py3-none-any.whl.metadata (6.7 kB)
Collecting jedi>=0.16 (from ipython>=6.1.0->ipywidgets>=8.0.4->open3d)
 Downloading jedi-0.19.2-py2.py3-none-any.whl.metadata (22 kB)
Collecting matplotlib-inline (from ipython>=6.1.0->ipywidgets>=8.0.4->open3d)
 Downloading matplotlib inline-0.1.7-py3-none-any.whl.metadata (3.9 kB)
Collecting pexpect>4.3 (from ipython>=6.1.0->ipywidgets>=8.0.4->open3d)
 Downloading pexpect-4.9.0-py2.py3-none-any.whl.metadata (2.5 kB)
Collecting prompt toolkit<3.1.0,>=3.0.41 (from ipython>=6.1.0->ipywidgets>=8.0.4->open3d)
 Downloading prompt toolkit-3.0.51-py3-none-any.whl.metadata (6.4 kB)
Collecting pygments>=2.4.0 (from ipython>=6.1.0->ipywidgets>=8.0.4->open3d)
 Downloading pygments-2.19.1-py3-none-any.whl.metadata (2.5 kB)
Collecting stack data (from ipython>=6.1.0->ipywidgets>=8.0.4->open3d)
 Downloading stack_data-0.6.3-py3-none-any.whl.metadata (18 kB)
Collecting wewidth (from
prompt toolkit<3.1.0,>=3.0.41->ipython>=6.1.0->ipywidgets>=8.0.4->open3d)
 Downloading wcwidth-0.2.13-py2.py3-none-any.whl.metadata (14 kB)
Collecting parso<0.9.0,>=0.8.4 (from jedi>=0.16->ipython>=6.1.0->ipywidgets>=8.0.4->open3d)
 Downloading parso-0.8.4-py2.py3-none-any.whl.metadata (7.7 kB)
Collecting contourpy>=1.0.1 (from matplotlib>=3->open3d)
 Downloading
contourpy-1.3.2-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl.metadata
(5.5 kB)
Collecting cycler>=0.10 (from matplotlib>=3->open3d)
 Downloading cycler-0.12.1-py3-none-any.whl.metadata (3.8 kB)
Collecting fonttools>=4.22.0 (from matplotlib>=3->open3d)
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fonttools-4.58.2-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl.metadata
(106 kB)
Collecting kiwisolver>=1.3.1 (from matplotlib>=3->open3d)
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kiwisolver-1.4.8-cp310-cp310-manylinux 2 12 x86 64.manylinux2010 x86 64.whl.metadata
(6.2 kB)
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Collecting packaging>=20.0 (from matplotlib>=3->open3d)
 Downloading packaging-25.0-py3-none-any.whl.metadata (3.3 kB)
Collecting pyparsing>=2.3.1 (from matplotlib>=3->open3d)
 Downloading pyparsing-3.2.3-py3-none-any.whl.metadata (5.0 kB)
Collecting python-dateutil>=2.7 (from matplotlib>=3->open3d)
 Downloading python dateutil-2.9.0.post0-py2.py3-none-any.whl.metadata (8.4 kB)
Collecting fastjsonschema>=2.15 (from nbformat>=5.7.0->open3d)
 Downloading fastjsonschema-2.21.1-py3-none-any.whl.metadata (2.2 kB)
Collecting jsonschema>=2.6 (from nbformat>=5.7.0->open3d)
 Downloading jsonschema-4.24.0-py3-none-any.whl.metadata (7.8 kB)
Collecting jupyter-core!=5.0.*,>=4.12 (from nbformat>=5.7.0->open3d)
 Downloading jupyter core-5.8.1-py3-none-any.whl.metadata (1.6 kB)
Collecting attrs>=22.2.0 (from jsonschema>=2.6->nbformat>=5.7.0->open3d)
 Downloading attrs-25.3.0-py3-none-any.whl.metadata (10 kB)
Collecting isonschema-specifications>=2023.03.6 (from
jsonschema>=2.6->nbformat>=5.7.0->open3d)
 Downloading jsonschema specifications-2025.4.1-py3-none-any.whl.metadata (2.9 kB)
Collecting referencing>=0.28.4 (from jsonschema>=2.6->nbformat>=5.7.0->open3d)
 Downloading referencing-0.36.2-py3-none-any.whl.metadata (2.8 kB)
Collecting rpds-py>=0.7.1 (from jsonschema>=2.6->nbformat>=5.7.0->open3d)
 Downloading
rpds_py-0.25.1-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl.metadata
(4.1 kB)
Collecting platformdirs>=2.5 (from jupyter-core!=5.0.*,>=4.12->nbformat>=5.7.0->open3d)
 Downloading platformdirs-4.3.8-py3-none-any.whl.metadata (12 kB)
Collecting pytz>=2020.1 (from pandas>=1.0->open3d)
 Downloading pytz-2025.2-py2.py3-none-any.whl.metadata (22 kB)
Collecting tzdata>=2022.7 (from pandas>=1.0->open3d)
 Downloading tzdata-2025.2-py2.py3-none-any.whl.metadata (1.4 kB)
Collecting ptyprocess>=0.5 (from pexpect>4.3->ipython>=6.1.0->ipywidgets>=8.0.4->open3d)
 Downloading ptyprocess-0.7.0-py2.py3-none-any.whl.metadata (1.3 kB)
Collecting narwhals>=1.15.1 (from plotly>=5.0.0->dash>=2.6.0->open3d)
 Downloading narwhals-1.42.0-py3-none-any.whl.metadata (11 kB)
Collecting six>=1.5 (from python-dateutil>=2.7->matplotlib>=3->open3d)
 Downloading six-1.17.0-py2.py3-none-any.whl.metadata (1.7 kB)
Collecting scipy>=1.8.0 (from scikit-learn>=0.21->open3d)
 Downloading
scipy-1.15.3-cp310-cp310-manylinux 2 17 x86 64.manylinux2014 x86 64.whl.metadata (61
kB)
Collecting joblib>=1.2.0 (from scikit-learn>=0.21->open3d)
 Downloading joblib-1.5.1-py3-none-any.whl.metadata (5.6 kB)
Collecting threadpoolctl>=3.1.0 (from scikit-learn>=0.21->open3d)
 Downloading threadpoolctl-3.6.0-py3-none-any.whl.metadata (13 kB)
Collecting zipp>=3.20 (from importlib-metadata->dash>=2.6.0->open3d)
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Downloading zipp-3.23.0-py3-none-any.whl.metadata (3.6 kB)

Collecting charset-normalizer<4,>=2 (from requests->dash>=2.6.0->open3d)

Downloading

charset\_normalizer-3.4.2-cp310-cp310-manylinux\_2\_17\_x86\_64.manylinux2014\_x86\_64.whl.m etadata (35 kB)

Collecting idna<4,>=2.5 (from requests->dash>=2.6.0->open3d)

Downloading idna-3.10-py3-none-any.whl.metadata (10 kB)

Collecting urllib3<3,>=1.21.1 (from requests->dash>=2.6.0->open3d)

Downloading urllib3-2.4.0-py3-none-any.whl.metadata (6.5 kB)

Collecting certifi>=2017.4.17 (from requests->dash>=2.6.0->open3d)

Downloading certifi-2025.4.26-py3-none-any.whl.metadata (2.5 kB)

Collecting executing>=1.2.0 (from stack\_data->ipython>=6.1.0->ipywidgets>=8.0.4->open3d)

Downloading executing-2.2.0-py2.py3-none-any.whl.metadata (8.9 kB)

Collecting asttokens>=2.1.0 (from stack\_data->ipython>=6.1.0->ipywidgets>=8.0.4->open3d)

Downloading asttokens-3.0.0-py3-none-any.whl.metadata (4.7 kB)

Collecting pure-eval (from stack data->ipython>=6.1.0->ipywidgets>=8.0.4->open3d)

Downloading pure eval-0.2.3-py3-none-any.whl.metadata (6.3 kB)

Downloading open3d-0.19.0-cp310-cp310-manylinux 2 31 x86 64.whl (447.7 MB)

### 447.7/447.7 MB 68.3 MB/s eta 0:00:00

Downloading dash-3.0.4-py3-none-any.whl (7.9 MB)

### 7.9/7.9 MB 75.3 MB/s eta 0:00:00

Downloading flask-3.0.3-py3-none-any.whl (101 kB)

Downloading werkzeug-3.0.6-py3-none-any.whl (227 kB)

Downloading blinker-1.9.0-py3-none-any.whl (8.5 kB)

Downloading click-8.2.1-py3-none-any.whl (102 kB)

Downloading ipywidgets-8.1.7-py3-none-any.whl (139 kB)

Downloading jupyterlab widgets-3.0.15-py3-none-any.whl (216 kB)

Downloading widgetsnbextension-4.0.14-py3-none-any.whl (2.2 MB)

2.2/2.2 MB 102.0 MB/s eta 0:00:00

Downloading comm-0.2.2-py3-none-any.whl (7.2 kB)

Downloading ipython-8.37.0-py3-none-any.whl (831 kB)

831.9/831.9 kB 50.7 MB/s eta 0:00:00

Downloading prompt\_toolkit-3.0.51-py3-none-any.whl (387 kB)

Downloading itsdangerous-2.2.0-py3-none-any.whl (16 kB)

Downloading jedi-0.19.2-py2.py3-none-any.whl (1.6 MB)

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## 1.6/1.6 MB 87.2 MB/s eta 0:00:00

Downloading parso-0.8.4-py2.py3-none-any.whl (103 kB)

Using cached jinja2-3.1.6-py3-none-any.whl (134 kB)

Downloading

MarkupSafe-3.0.2-cp310-cp310-manylinux\_2\_17\_x86\_64.manylinux2014\_x86\_64.whl (20 kB)

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matplotlib-3.10.3-cp310-cp310-manylinux\_2\_17\_x86\_64.manylinux2014\_x86\_64.whl (8.6 MB)

atplotile 6.16.6 ope 16 cpc 16 manyimax\_2\_17\_x66\_64.manyimax2614\_x66\_64.wiii (6.6 wib)

### 8.6/8.6 MB 76.9 MB/s eta 0:00:00

Downloading

contourpy-1.3.2-cp310-cp310-manylinux\_2\_17\_x86\_64.manylinux2014\_x86\_64.whl (325 kB)

Downloading cycler-0.12.1-py3-none-any.whl (8.3 kB)

Downloading

fonttools-4.58.2-cp310-cp310-manylinux 2 17 x86 64.manylinux2014 x86 64.whl (4.8 MB)

onttoois-4.56.2-cp510-cp510-manyimux\_z\_17\_x60\_64.manyimux2014\_x60\_64.wiii (4.6 Mb)

## 4.8/4.8 MB 73.1 MB/s eta 0:00:00

Downloading

kiwisolver-1.4.8-cp310-cp310-manylinux\_2\_12\_x86\_64.manylinux2010\_x86\_64.whl (1.6 MB)

wisolver-1.4.0-cp310-cp310-manyimux\_2\_12\_x00\_04.manyimux2010\_x00\_04.wiii (1.0 wib)

### 1.6/1.6 MB 107.8 MB/s eta 0:00:00

Downloading nbformat-5.10.4-py3-none-any.whl (78 kB)

Downloading fastjsonschema-2.21.1-py3-none-any.whl (23 kB)

Downloading jsonschema-4.24.0-py3-none-any.whl (88 kB)

Downloading attrs-25.3.0-py3-none-any.whl (63 kB)

Downloading jsonschema\_specifications-2025.4.1-py3-none-any.whl (18 kB)

Downloading jupyter\_core-5.8.1-py3-none-any.whl (28 kB)

Downloading numpy-2.2.6-cp310-cp310-manylinux\_2\_17\_x86\_64.manylinux2014\_x86\_64.whl (16.8 MB)

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## 16.8/16.8 MB 76.7 MB/s eta 0:00:00

Downloading packaging-25.0-py3-none-any.whl (66 kB)

Downloading pandas-2.3.0-cp310-cp310-manylinux\_2\_17\_x86\_64.manylinux2014\_x86\_64.whl (12.3 MB)

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### 12.3/12.3 MB 76.8 MB/s eta 0:00:00

Downloading pexpect-4.9.0-py2.py3-none-any.whl (63 kB)

Downloading pillow-11.2.1-cp310-cp310-manylinux 2 28 x86 64.whl (4.6 MB)

# 4.6/4.6 MB 70.3 MB/s eta 0:00:00

Downloading platformdirs-4.3.8-py3-none-any.whl (18 kB)

Downloading plotly-6.1.2-py3-none-any.whl (16.3 MB)

# 16.3/16.3 MB 75.5 MB/s eta 0:00:00

Downloading narwhals-1.42.0-py3-none-any.whl (359 kB)

Downloading ptyprocess-0.7.0-py2.py3-none-any.whl (13 kB)

Downloading pygments-2.19.1-py3-none-any.whl (1.2 MB)

## 1.2/1.2 MB 124.2 MB/s eta 0:00:00

Downloading pyparsing-3.2.3-py3-none-any.whl (111 kB)

Downloading python\_dateutil-2.9.0.post0-py2.py3-none-any.whl (229 kB)

Downloading pytz-2025.2-py2.py3-none-any.whl (509 kB)

Downloading

PyYAML-6.0.2-cp310-cp310-manylinux\_2\_17\_x86\_64.manylinux2014\_x86\_64.whl (751 kB)

### 751.2/751.2 kB 116.2 MB/s eta 0:00:00

Downloading referencing-0.36.2-py3-none-any.whl (26 kB)

Downloading

rpds\_py-0.25.1-cp310-cp310-manylinux\_2\_17\_x86\_64.manylinux2014\_x86\_64.whl (386 kB)

Downloading

scikit\_learn-1.7.0-cp310-cp310-manylinux\_2\_17\_x86\_64.manylinux2014\_x86\_64.whl (12.9 MB)

# 12.9/12.9 MB 77.4 MB/s eta 0:00:00

Downloading joblib-1.5.1-py3-none-any.whl (307 kB)

Downloading scipy-1.15.3-cp310-cp310-manylinux\_2\_17\_x86\_64.manylinux2014\_x86\_64.whl (37.7 MB)

# 37.7/37.7 MB 78.1 MB/s eta 0:00:00

Downloading six-1.17.0-py2.py3-none-any.whl (11 kB)

Downloading threadpoolctl-3.6.0-py3-none-any.whl (18 kB)

Downloading traitlets-5.14.3-py3-none-any.whl (85 kB)

Downloading typing extensions-4.14.0-py3-none-any.whl (43 kB)

Downloading tzdata-2025.2-py2.py3-none-any.whl (347 kB)

Downloading addict-2.4.0-py3-none-any.whl (3.8 kB)

Downloading configargparse-1.7.1-py3-none-any.whl (25 kB)

Downloading decorator-5.2.1-py3-none-any.whl (9.2 kB)

Downloading exceptiongroup-1.3.0-py3-none-any.whl (16 kB)

Downloading importlib\_metadata-8.7.0-py3-none-any.whl (27 kB)

Downloading zipp-3.23.0-py3-none-any.whl (10 kB)

Downloading matplotlib inline-0.1.7-py3-none-any.whl (9.9 kB)

Downloading nest\_asyncio-1.6.0-py3-none-any.whl (5.2 kB)

Downloading pyquaternion-0.9.9-py3-none-any.whl (14 kB)

Downloading requests-2.32.3-py3-none-any.whl (64 kB)

Downloading

charset\_normalizer-3.4.2-cp310-cp310-manylinux\_2\_17\_x86\_64.manylinux2014\_x86\_64.whl (149 kB)

Downloading idna-3.10-py3-none-any.whl (70 kB)

Downloading urllib3-2.4.0-py3-none-any.whl (128 kB)

Downloading certifi-2025.4.26-py3-none-any.whl (159 kB)

Downloading retrying-1.3.4-py3-none-any.whl (11 kB)

Downloading stack\_data-0.6.3-py3-none-any.whl (24 kB)

Downloading asttokens-3.0.0-py3-none-any.whl (26 kB)

Downloading executing-2.2.0-py2.py3-none-any.whl (26 kB)

Downloading pure\_eval-0.2.3-py3-none-any.whl (11 kB)

Downloading tqdm-4.67.1-py3-none-any.whl (78 kB)

Downloading wcwidth-0.2.13-py2.py3-none-any.whl (34 kB)

Installing collected packages: wcwidth, pytz, pure-eval, ptyprocess, fastjsonschema, addict, zipp, widgetsnbextension, urllib3, tzdata, typing-extensions, traitlets, tgdm, threadpoolctl, six, rpds-py, pyyaml, pyparsing, pygments, prompt toolkit, platformdirs, pillow, pexpect, parso, packaging, numpy, nest-asyncio, narwhals, MarkupSafe, kiwisolver, jupyterlab widgets, joblib, itsdangerous, idna, fonttools, executing, decorator, cycler, configargparse, click, charset-normalizer, certifi, blinker, attrs, asttokens, werkzeug, stack data, scipy, retrying, requests, referencing, python-dateutil, pyquaternion, plotly, matplotlib-inline, jupyter-core, Jinja2, jedi, importlib-metadata, exceptiongroup, contourpy, comm, scikit-learn, pandas, matplotlib, isonschema-specifications, ipython, flask, isonschema, ipywidgets, dash, nbformat, open3d Successfully installed Jinja2-3.1.6 MarkupSafe-3.0.2 addict-2.4.0 asttokens-3.0.0 attrs-25.3.0 blinker-1.9.0 certifi-2025.4.26 charset-normalizer-3.4.2 click-8.2.1 comm-0.2.2 configargparse-1.7.1 contourpy-1.3.2 cycler-0.12.1 dash-3.0.4 decorator-5.2.1 exceptiongroup-1.3.0 executing-2.2.0 fastjsonschema-2.21.1 flask-3.0.3 fonttools-4.58.2 idna-3.10 importlib-metadata-8.7.0 ipython-8.37.0 ipywidgets-8.1.7 itsdangerous-2.2.0 jedi-0.19.2 joblib-1.5.1 jsonschema-4.24.0 jsonschema-specifications-2025.4.1 jupyter-core-5.8.1 jupyterlab\_widgets-3.0.15 kiwisolver-1.4.8 matplotlib-3.10.3 matplotlib-inline-0.1.7 narwhals-1.42.0 nbformat-5.10.4 nest-asyncio-1.6.0 numpy-2.2.6 open3d-0.19.0 packaging-25.0 pandas-2.3.0 parso-0.8.4 pexpect-4.9.0 pillow-11.2.1 platformdirs-4.3.8 plotly-6.1.2 prompt toolkit-3.0.51 ptyprocess-0.7.0 pure-eval-0.2.3 pygments-2.19.1 pyparsing-3.2.3 pyquaternion-0.9.9 python-dateutil-2.9.0.post0 pytz-2025.2 pyyaml-6.0.2 referencing-0.36.2 requests-2.32.3 retrying-1.3.4 rpds-py-0.25.1 scikit-learn-1.7.0 scipy-1.15.3 six-1.17.0 stack\_data-0.6.3 threadpoolctl-3.6.0 tqdm-4.67.1 traitlets-5.14.3 typing-extensions-4.14.0 tzdata-2025.2 urllib3-2.4.0 wcwidth-0.2.13 werkzeug-3.0.6 widgetsnbextension-4.0.14 zipp-3.23.0

(pvcnn\_env) intern@dse-MS-7D09:~/Desktop/pvcnn\$ python load.py Traceback (most recent call last):

File "/home/intern/Desktop/pvcnn/load.py", line 2, in <module> import torch

ModuleNotFoundError: No module named 'torch'

(pvcnn\_env) intern@dse-MS-7D09:~/Desktop/pvcnn\$ pip install torch

Collecting torch

Downloading torch-2.7.1-cp310-cp310-manylinux\_2\_28\_x86\_64.whl.metadata (29 kB) Collecting filelock (from torch)

Using cached filelock-3.18.0-py3-none-any.whl.metadata (2.9 kB)

Requirement already satisfied: typing-extensions>=4.10.0 in

/home/intern/miniconda3/envs/pvcnn\_env/lib/python3.10/site-packages (from torch) (4.14.0) Collecting sympy>=1.13.3 (from torch)

Using cached sympy-1.14.0-py3-none-any.whl.metadata (12 kB)

Collecting networkx (from torch)

Downloading networkx-3.4.2-py3-none-any.whl.metadata (6.3 kB)

Requirement already satisfied: jinja2 in

/home/intern/miniconda3/envs/pvcnn\_env/lib/python3.10/site-packages (from torch) (3.1.6)

Collecting fsspec (from torch)

Using cached fsspec-2025.5.1-py3-none-any.whl.metadata (11 kB)

Collecting nvidia-cuda-nvrtc-cu12==12.6.77 (from torch)

Using cached

nvidia\_cuda\_nvrtc\_cu12-12.6.77-py3-none-manylinux2014\_x86\_64.whl.metadata (1.5 kB)

Collecting nvidia-cuda-runtime-cu12==12.6.77 (from torch)

Using cached

nvidia\_cuda\_runtime\_cu12-12.6.77-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64 .whl.metadata (1.5 kB)

Collecting nvidia-cuda-cupti-cu12==12.6.80 (from torch)

Using cached

nvidia\_cuda\_cupti\_cu12-12.6.80-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64.w hl.metadata (1.6 kB)

Collecting nvidia-cudnn-cu12==9.5.1.17 (from torch)

Using cached nvidia\_cudnn\_cu12-9.5.1.17-py3-none-manylinux\_2\_28\_x86\_64.whl.metadata (1.6 kB)

Collecting nvidia-cublas-cu12==12.6.4.1 (from torch)

Using cached

nvidia\_cublas\_cu12-12.6.4.1-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64.whl.m etadata (1.5 kB)

Collecting nvidia-cufft-cu12==11.3.0.4 (from torch)

Using cached

nvidia\_cufft\_cu12-11.3.0.4-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64.whl.met adata (1.5 kB)

Collecting nvidia-curand-cu12==10.3.7.77 (from torch)

Using cached

nvidia\_curand\_cu12-10.3.7.77-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64.whl. metadata (1.5 kB)

Collecting nvidia-cusolver-cu12==11.7.1.2 (from torch)

Using cached

nvidia\_cusolver\_cu12-11.7.1.2-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64.whl. metadata (1.6 kB)

Collecting nvidia-cusparse-cu12==12.5.4.2 (from torch)

Using cached

nvidia\_cusparse\_cu12-12.5.4.2-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64.whl .metadata (1.6 kB)

Collecting nvidia-cusparselt-cu12==0.6.3 (from torch)

Using cached nvidia\_cusparselt\_cu12-0.6.3-py3-none-manylinux2014\_x86\_64.whl.metadata (6.8 kB)

Collecting nvidia-nccl-cu12==2.26.2 (from torch)

Using cached

nvidia\_nccl\_cu12-2.26.2-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64.whl.metad ata (2.0 kB)

Collecting nvidia-nvtx-cu12==12.6.77 (from torch)

Using cached

nvidia\_nvtx\_cu12-12.6.77-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64.whl.meta data (1.6 kB)

Collecting nvidia-nvjitlink-cu12==12.6.85 (from torch)

Using cached

nvidia\_nvjitlink\_cu12-12.6.85-py3-none-manylinux2010\_x86\_64.manylinux\_2\_12\_x86\_64.whl.m etadata (1.5 kB)

Collecting nvidia-cufile-cu12==1.11.1.6 (from torch)

Using cached

nvidia\_cufile\_cu12-1.11.1.6-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64.whl.me tadata (1.5 kB)

Collecting triton==3.3.1 (from torch)

Downloading

triton-3.3.1-cp310-cp310-manylinux\_2\_27\_x86\_64.manylinux\_2\_28\_x86\_64.whl.metadata (1.5 kB)

Requirement already satisfied: setuptools>=40.8.0 in

/home/intern/miniconda3/envs/pvcnn\_env/lib/python3.10/site-packages (from

triton==3.3.1->torch) (78.1.1)

Collecting mpmath<1.4,>=1.1.0 (from sympy>=1.13.3->torch)

Using cached mpmath-1.3.0-py3-none-any.whl.metadata (8.6 kB)

Requirement already satisfied: MarkupSafe>=2.0 in

/home/intern/miniconda3/envs/pvcnn\_env/lib/python3.10/site-packages (from jinja2->torch) (3.0.2)

Downloading torch-2.7.1-cp310-cp310-manylinux 2 28 x86 64.whl (821.2 MB)

# 821.2/821.2 MB 43.7 MB/s eta 0:00:00

Using cached

 $nvidia\_cublas\_cu12-12.6.4.1-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64.whl (393.1 \ MB)$ 

Using cached

nvidia\_cuda\_cupti\_cu12-12.6.80-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64.w hl (8.9 MB)

Using cached nvidia\_cuda\_nvrtc\_cu12-12.6.77-py3-none-manylinux2014\_x86\_64.whl (23.7 MB)

Using cached

nvidia\_cuda\_runtime\_cu12-12.6.77-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64 .whl (897 kB)

Using cached nvidia cudnn cu12-9.5.1.17-py3-none-manylinux 2 28 x86 64.whl (571.0 MB)

Using cached

nvidia\_cufft\_cu12-11.3.0.4-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64.whl (200.2 MB)

Using cached

nvidia\_cufile\_cu12-1.11.1.6-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64.whl (1.1 MB)

Using cached

nvidia\_curand\_cu12-10.3.7.77-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64.whl (56.3 MB)

Using cached

nvidia\_cusolver\_cu12-11.7.1.2-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64.whl (158.2 MB)

Using cached

nvidia\_cusparse\_cu12-12.5.4.2-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64.whl (216.6 MB)

Using cached nvidia\_cusparselt\_cu12-0.6.3-py3-none-manylinux2014\_x86\_64.whl (156.8 MB) Using cached

nvidia\_nccl\_cu12-2.26.2-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64.whl (201.3 MB)

Using cached

nvidia\_nvjitlink\_cu12-12.6.85-py3-none-manylinux2010\_x86\_64.manylinux\_2\_12\_x86\_64.whl (19.7 MB)

Using cached

nvidia\_nvtx\_cu12-12.6.77-py3-none-manylinux2014\_x86\_64.manylinux\_2\_17\_x86\_64.whl (89 kB)

Downloading triton-3.3.1-cp310-cp310-manylinux\_2\_27\_x86\_64.manylinux\_2\_28\_x86\_64.whl (155.6 MB)

155.6/155.6 MB 44.7 MB/s eta 0:00:00

Using cached sympy-1.14.0-py3-none-any.whl (6.3 MB)

Using cached mpmath-1.3.0-py3-none-any.whl (536 kB)

Using cached filelock-3.18.0-py3-none-any.whl (16 kB)

Using cached fsspec-2025.5.1-py3-none-any.whl (199 kB)

Downloading networkx-3.4.2-py3-none-any.whl (1.7 MB)

1.7/1.7 MB 55.4 MB/s eta 0:00:00

Installing collected packages: nvidia-cusparselt-cu12, mpmath, triton, sympy, nvidia-nvtx-cu12, nvidia-nvjitlink-cu12, nvidia-nccl-cu12, nvidia-curand-cu12, nvidia-cufile-cu12,

nvidia-cuda-runtime-cu12, nvidia-cuda-nvrtc-cu12, nvidia-cuda-cupti-cu12, nvidia-cublas-cu12, networkx, fsspec, filelock, nvidia-cusparse-cu12, nvidia-cufft-cu12, nvidia-cudnn-cu12, nvidia-cusolver-cu12, torch

Successfully installed filelock-3.18.0 fsspec-2025.5.1 mpmath-1.3.0 networkx-3.4.2 nvidia-cublas-cu12-12.6.4.1 nvidia-cuda-cupti-cu12-12.6.80 nvidia-cuda-nvrtc-cu12-12.6.77 nvidia-cuda-runtime-cu12-12.6.77 nvidia-cudnn-cu12-9.5.1.17 nvidia-cufft-cu12-11.3.0.4

```
nvidia-cufile-cu12-1.11.1.6 nvidia-curand-cu12-10.3.7.77 nvidia-cusolver-cu12-11.7.1.2
nvidia-cusparse-cu12-12.5.4.2 nvidia-cusparselt-cu12-0.6.3 nvidia-nccl-cu12-2.26.2
nvidia-nvjitlink-cu12-12.6.85 nvidia-nvtx-cu12-12.6.77 sympy-1.14.0 torch-2.7.1 triton-3.3.1
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python load.py
Traceback (most recent call last):
 File "/home/intern/Desktop/pvcnn/load.py", line 9, in <module>
  from modules import PVConv # Adjust import path if needed
 File "/home/intern/Desktop/pvcnn/modules/ init .py", line 1, in <module>
  from modules.ball query import BallQuery
 File "/home/intern/Desktop/pvcnn/modules/ball query.py", line 4, in <module>
  import modules.functional as F
 File "/home/intern/Desktop/pvcnn/modules/functional/ init .py", line 1, in <module>
  from modules.functional.ball query import ball query
 File "/home/intern/Desktop/pvcnn/modules/functional/ball query.py", line 3, in <module>
  from modules.functional.backend import backend
 File "/home/intern/Desktop/pvcnn/modules/functional/backend.py", line 6, in <module>
  _backend = load(name='_pvcnn_backend',
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/utils/cpp extensio
n.py", line 1623, in load
  return jit compile(
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/utils/cpp extensio
n.py", line 2076, in jit compile
  _write_ninja_file_and_build library(
 File
"/home/intern/miniconda3/envs/pvcnn_env/lib/python3.10/site-packages/torch/utils/cpp_extensio
n.py", line 2180, in write ninja file and build library
  verify ninja availability()
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/utils/cpp extensio
n.py", line 2241, in verify ninja availability
  raise RuntimeError("Ninja is required to load C++ extensions")
RuntimeError: Ninja is required to load C++ extensions
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ conda install ninja
Channels:
- defaults
Platform: linux-64
Collecting package metadata (repodata.json): done
Solving environment: done
## Package Plan ##
```

environment location: /home/intern/miniconda3/envs/pvcnn env

```
added / updated specs:
  - ninja
The following NEW packages will be INSTALLED:
 ninja
              pkgs/main/linux-64::ninja-1.12.1-h06a4308 0
 ninja-base
                pkgs/main/linux-64::ninja-base-1.12.1-hdb19cb5 0
Proceed ([y]/n)? y
Downloading and Extracting Packages:
Preparing transaction: done
Verifying transaction: done
Executing transaction: done
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python load.py
/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/utils/cpp extensio
n.py:2356: UserWarning: TORCH_CUDA_ARCH_LIST is not set, all archs for visible cards are
included for compilation.
If this is not desired, please set os.environ['TORCH CUDA ARCH LIST'].
 warnings.warn(
Using device: cuda
Traceback (most recent call last):
 File "/home/intern/Desktop/pvcnn/load.py", line 65, in <module>
  main()
 File "/home/intern/Desktop/pvcnn/load.py", line 38, in main
  raise FileNotFoundError(f"Checkpoint file not found at {checkpoint path}")
FileNotFoundError: Checkpoint file not found at checkpoints/best model.pth
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python training.py
/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/utils/cpp extensio
n.py:2356: UserWarning: TORCH_CUDA_ARCH_LIST is not set, all archs for visible cards are
included for compilation.
If this is not desired, please set os.environ['TORCH CUDA ARCH LIST'].
 warnings.warn(
Extracting dataset from ~/Desktop/pvcnn/data_object_label_2.zip to dataset_extracted...
```

Traceback (most recent call last):

unzip\_dataset(zip\_path, extract\_to)

main()

File "/home/intern/Desktop/pvcnn/training.py", line 106, in <module>

File "/home/intern/Desktop/pvcnn/training.py", line 55, in main

```
File "/home/intern/Desktop/pvcnn/training.py", line 17, in unzip dataset
  with zipfile.ZipFile(zip_path, 'r') as zip_ref:
 File "/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/zipfile.py", line 1254, in init
  self.fp = io.open(file, filemode)
FileNotFoundError: [Errno 2] No such file or directory:
'~/Desktop/pvcnn/data object label 2.zip'
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python training.py
/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/utils/cpp extensio
n.py:2356: UserWarning: TORCH CUDA ARCH LIST is not set, all archs for visible cards are
included for compilation.
If this is not desired, please set os.environ['TORCH CUDA ARCH LIST'].
 warnings.warn(
Extracting dataset from ~/Downloads/data object label 2.zip to dataset extracted...
Traceback (most recent call last):
 File "/home/intern/Desktop/pvcnn/training.py", line 106, in <module>
  main()
 File "/home/intern/Desktop/pvcnn/training.py", line 55, in main
  unzip dataset(zip path, extract to)
 File "/home/intern/Desktop/pvcnn/training.py", line 17, in unzip_dataset
  with zipfile.ZipFile(zip path, 'r') as zip ref:
 File "/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/zipfile.py", line 1254, in init
  self.fp = io.open(file, filemode)
FileNotFoundError: [Errno 2] No such file or directory: '~/Downloads/data object label 2.zip'
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python training.py
/home/intern/miniconda3/envs/pvcnn_env/lib/python3.10/site-packages/torch/utils/cpp_extensio
n.py:2356: UserWarning: TORCH CUDA ARCH LIST is not set, all archs for visible cards are
included for compilation.
If this is not desired, please set os.environ['TORCH CUDA ARCH LIST'].
 warnings.warn(
Extracting dataset from /home/intern/Downloads/data_object_label_2.zip to dataset_extracted...
Extraction complete.
Using device: cuda
Traceback (most recent call last):
 File "/home/intern/Desktop/pvcnn/training.py", line 106, in <module>
  main()
 File "/home/intern/Desktop/pvcnn/training.py", line 62, in main
  dataset = PointCloudDataset(extract_to)
 File "/home/intern/Desktop/pvcnn/training.pv", line 29, in init
  self.cloud_files = sorted(os.listdir(self.cloud_dir))
FileNotFoundError: [Errno 2] No such file or directory: 'dataset extracted/clouds'
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ Is dataset extracted
training
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python segment ply.py
```

/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/utils/cpp extensio n.py:2356: UserWarning: TORCH\_CUDA\_ARCH\_LIST is not set, all archs for visible cards are included for compilation. If this is not desired, please set os.environ['TORCH CUDA ARCH LIST']. warnings.warn( Using device: cuda Traceback (most recent call last): File "/home/intern/Desktop/pvcnn/segment ply.py", line 73, in <module> main() File "/home/intern/Desktop/pvcnn/segment ply.py", line 36, in main raise FileNotFoundError(f"Checkpoint not found: {checkpoint path}") FileNotFoundError: Checkpoint not found: checkpoints/best model.pth (pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn\$ mkdir checkpoints (pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn\$ python segment\_ply.py /home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/utils/cpp extensio n.py:2356: UserWarning: TORCH\_CUDA\_ARCH\_LIST is not set, all archs for visible cards are included for compilation. If this is not desired, please set os.environ['TORCH CUDA ARCH LIST']. warnings.warn( Traceback (most recent call last): File "/home/intern/Desktop/pvcnn/segment ply.py", line 12, in <module> 'model\_state\_dict': model.state\_dict(), NameError: name 'model' is not defined (pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn\$ python training2.py /home/intern/miniconda3/envs/pvcnn\_env/lib/python3.10/site-packages/torch/utils/cpp\_extensio n.py:2356: UserWarning: TORCH CUDA ARCH LIST is not set, all archs for visible cards are included for compilation. If this is not desired, please set os.environ['TORCH CUDA ARCH LIST']. warnings.warn( Using device: cuda Traceback (most recent call last): File "/home/intern/Desktop/pvcnn/training2.py", line 107, in <module> main() File "/home/intern/Desktop/pvcnn/training2.py", line 63, in main dataset = PointCloudDataset(data dir) File "/home/intern/Desktop/pvcnn/training2.py", line 13, in init self.cloud files = sorted(os.listdir(os.path.join(data dir, "clouds"))) FileNotFoundError: [Errno 2] No such file or directory: 'dataset extracted/clouds' (pvcnn\_env) intern@dse-MS-7D09:~/Desktop/pvcnn\$ python training2.py Using device: cuda No checkpoint found, starting from scratch. ValueError: could not convert string to float: 'Pedestrian'

The above exception was the direct cause of the following exception:

```
Traceback (most recent call last):
 File "/home/intern/Desktop/pvcnn/training2.py", line 82, in <module>
  main()
 File "/home/intern/Desktop/pvcnn/training2.py", line 74, in main
  for points, labels in dataloader:
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/utils/data/dataloa
der.py", line 733, in next
  data = self. next data()
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/utils/data/dataloa
der.py", line 789, in next data
  data = self. dataset fetcher.fetch(index) # may raise StopIteration
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/utils/data/ utils/fet
ch.py", line 52, in fetch
  data = [self.dataset[idx] for idx in possibly batched index]
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/utils/data/ utils/fet
ch.py", line 52, in < listcomp>
  data = [self.dataset[idx] for idx in possibly_batched_index]
 File "/home/intern/Desktop/pvcnn/training2.py", line 33, in getitem
  cloud = np.loadtxt(file path, delimiter=' ')
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/numpy/lib/ npyio impl.
py", line 1395, in loadtxt
  arr = read(fname, dtype=dtype, comment=comment, delimiter=delimiter,
 File
"/home/intern/miniconda3/envs/pvcnn_env/lib/python3.10/site-packages/numpy/lib/_npyio_impl.
py", line 1046, in read
  arr = load from filelike(
ValueError: could not convert string 'Pedestrian' to float64 at row 0, column 1.
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python training2.py
Using device: cuda
Epoch 1, Loss: 2.093172079456929
Epoch 2, Loss: 1.196671613966444
Epoch 3, Loss: 1.0175975223138076
Epoch 4, Loss: 0.9706093751367945
Epoch 5, Loss: 0.955856600191936
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python training2.py
Using device: cuda
Epoch 1, Loss: 2.0216
Epoch 2, Loss: 1.1282
```

```
Epoch 3. Loss: 0.9961
Epoch 4, Loss: 0.9571
Epoch 5, Loss: 0.9502
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python training2.py
Using device: cuda
Epoch 1, Loss: 2.2025
Epoch 2, Loss: 1.1719
Epoch 3, Loss: 0.9992
Epoch 4, Loss: 0.9709
Epoch 5, Loss: 0.9581
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python segment ply.py
 File "/home/intern/Desktop/pvcnn/segment ply.py", line 9
  def load model(checkpoint path, device):
IndentationError: expected an indented block after class definition on line 6
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python segment ply.py
 File "/home/intern/Desktop/pvcnn/segment_ply.py", line 9
  def load model(checkpoint path, device):
IndentationError: expected an indented block after class definition on line 6
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python segment ply.py
Using device: cuda
RPIv: Unable to open file
[Open3D WARNING] Read PLY failed: unable to open file: your pointcloud.ply
Traceback (most recent call last):
 File "/home/intern/Desktop/pvcnn/segment ply.py", line 103, in <module>
 File "/home/intern/Desktop/pvcnn/segment ply.py", line 100, in main
  segment ply(ply path, model, device, class names)
 File "/home/intern/Desktop/pvcnn/segment_ply.py", line 69, in segment_ply
  outputs = model(points) # (1, N, num classes)
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/nn/modules/modu
le.py", line 1751, in wrapped call impl
  return self. call impl(*args, **kwargs)
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/nn/modules/modu
le.py", line 1762, in call impl
  return forward call(*args, **kwargs)
 File "/home/intern/Desktop/pvcnn/segment ply.py", line 45, in forward
  x = F.relu(self.bn1(self.conv1(x)))
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/nn/modules/modu
le.py", line 1751, in wrapped call impl
```

```
return self. call impl(*args, **kwargs)
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/nn/modules/modu
le.py", line 1762, in call impl
  return forward call(*args, **kwargs)
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/nn/modules/conv.
py", line 375, in forward
  return self. conv forward(input, self.weight, self.bias)
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/nn/modules/conv.
py", line 370, in conv forward
  return F.conv1d(
RuntimeError: Calculated padded input size per channel: (0). Kernel size: (1). Kernel size can't
be greater than actual input size
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python segment ply.py
Using device: cuda
RPIv: Unable to open file
[Open3D WARNING] Read PLY failed: unable to open file: zed out.ply
Traceback (most recent call last):
 File "/home/intern/Desktop/pvcnn/segment_ply.py", line 103, in <module>
  main()
 File "/home/intern/Desktop/pvcnn/segment ply.py", line 100, in main
  segment ply(ply path, model, device, class names)
 File "/home/intern/Desktop/pvcnn/segment_ply.py", line 69, in segment_ply
  outputs = model(points) # (1, N, num classes)
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/nn/modules/modu
le.py", line 1751, in wrapped call impl
  return self._call_impl(*args, **kwargs)
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/nn/modules/modu
le.py", line 1762, in call impl
  return forward call(*args, **kwargs)
 File "/home/intern/Desktop/pvcnn/segment ply.py", line 45, in forward
  x = F.relu(self.bn1(self.conv1(x)))
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/nn/modules/modu
le.py", line 1751, in _wrapped_call_impl
  return self. call impl(*args, **kwargs)
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/nn/modules/modu
le.py", line 1762, in call impl
  return forward call(*args, **kwargs)
```

```
File
"/home/intern/miniconda3/envs/pvcnn_env/lib/python3.10/site-packages/torch/nn/modules/conv.
py", line 375, in forward
  return self. conv forward(input, self.weight, self.bias)
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/nn/modules/conv.
py", line 370, in conv forward
  return F.conv1d(
RuntimeError: Calculated padded input size per channel: (0). Kernel size: (1). Kernel size can't
be greater than actual input size
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python segment ply.py
Using device: cuda
RPly: Error reading 'blue' of 'vertex' number 90031
[Open3D WARNING] Read PLY failed: unable to read file: /home/intern/Desktop/zed out.ply
Traceback (most recent call last):
 File "/home/intern/Desktop/pvcnn/segment ply.py", line 103, in <module>
 File "/home/intern/Desktop/pvcnn/segment_ply.py", line 100, in main
  segment_ply(ply_path, model, device, class names)
 File "/home/intern/Desktop/pvcnn/segment_ply.py", line 69, in segment_ply
  outputs = model(points) # (1, N, num classes)
 File
"/home/intern/miniconda3/envs/pvcnn_env/lib/python3.10/site-packages/torch/nn/modules/modu
le.py", line 1751, in wrapped call impl
  return self. call impl(*args, **kwargs)
 File
"/home/intern/miniconda3/envs/pvcnn_env/lib/python3.10/site-packages/torch/nn/modules/modu
le.py", line 1762, in call impl
  return forward call(*args, **kwargs)
 File "/home/intern/Desktop/pvcnn/segment_ply.py", line 55, in forward
  x = F.relu(self.bn4(self.fc1(x concat)))
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/nn/modules/modu
le.py", line 1751, in wrapped call impl
  return self. call impl(*args, **kwargs)
 File
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/nn/modules/modu
le.py", line 1762, in call impl
  return forward_call(*args, **kwargs)
"/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/torch/nn/modules/linear
.py", line 125, in forward
  return F.linear(input, self.weight, self.bias)
RuntimeError: mat1 and mat2 shapes cannot be multiplied (90032x2048 and 1088x512)
```

(pvcnn\_env) intern@dse-MS-7D09:~/Desktop/pvcnn\$ python segment\_ply.py

Using device: cuda

RPly: Error reading 'blue' of 'vertex' number 90031

[Open3D WARNING] Read PLY failed: unable to read file: /home/intern/Desktop/zed\_out.ply

Segmented 90032 points. Class 'DontCare' points: 43677 Class 'Misc' points: 46355

RPly: Error reading 'blue' of 'vertex' number 90031

[Open3D WARNING] Read PLY failed: unable to read file: /home/intern/Desktop/zed\_out.ply

Saved segmented point cloud to: /home/intern/Desktop/zed\_out\_segmented.ply (pvcnn\_env) intern@dse-MS-7D09:~/Desktop/pvcnn\$ python segment\_ply.py

Using device: cuda

RPly: Error reading 'blue' of 'vertex' number 90031

[Open3D WARNING] Read PLY failed: unable to read file: /home/intern/Desktop/zed\_out.ply Segmented 90032 points.

Class 'Car' points: 90032

RPly: Error reading 'blue' of 'vertex' number 90031

[Open3D WARNING] Read PLY failed: unable to read file: /home/intern/Desktop/zed\_out.ply

Saved segmented point cloud to: /home/intern/Desktop/zed\_out\_segmented.ply (pvcnn\_env) intern@dse-MS-7D09:~/Desktop/pvcnn\$ python segment\_ply.py

Using device: cuda

RPly: Error reading 'blue' of 'vertex' number 90031

[Open3D WARNING] Read PLY failed: unable to read file: /home/intern/Desktop/zed\_out.ply

Segmented 90032 points. Class 'Cyclist' points: 39628 Class 'Truck' points: 48869 Class 'Misc' points: 1535

RPly: Error reading 'blue' of 'vertex' number 90031

[Open3D WARNING] Read PLY failed: unable to read file: /home/intern/Desktop/zed out.ply

Saved segmented point cloud to: /home/intern/Desktop/zed\_out\_segmented.ply (pvcnn\_env) intern@dse-MS-7D09:~/Desktop/pvcnn\$ python segment\_ply.py

Using device: cuda

RPly: Error reading 'blue' of 'vertex' number 90031

[Open3D WARNING] Read PLY failed: unable to read file: /home/intern/Desktop/zed\_out.ply Segmented 90032 points.

Class 'Cyclist' points: 64240 Class 'Car' points: 25792

RPly: Error reading 'blue' of 'vertex' number 90031

[Open3D WARNING] Read PLY failed: unable to read file: /home/intern/Desktop/zed out.ply

Saved segmented point cloud to: /home/intern/Desktop/zed out segmented.ply

(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn\$ ^C

(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn\$ python read-point cloud.py

python: can't open file '/home/intern/Desktop/pvcnn/read-point\_cloud.py': [Errno 2] No such file or directory

```
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python read point cloud.py
Traceback (most recent call last):
 File "/home/intern/Desktop/pvcnn/read point cloud.py", line 49, in <module>
  class PlyPointCloudDataset(torch.utils.data.Dataset):
NameError: name 'torch' is not defined
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python read point cloud.py
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python load.py
RPly: Unable to open file
[Open3D WARNING] Read PLY failed: unable to open file:
/home/intern/Desktop/zed out segmented.ply.ply
PointCloud with 0 points.
Number of points: 0
[Open3D WARNING] The number of points is 0 when creating axis-aligned bounding box.
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python load.py
RPIv: Unable to open file
[Open3D WARNING] Read PLY failed: unable to open file: /home/intern/Desktop/zed out.ply.ply
PointCloud with 0 points.
Number of points: 0
[Open3D WARNING] The number of points is 0 when creating axis-aligned bounding box.
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python segment ply.py
Traceback (most recent call last):
 File "/home/intern/Desktop/pvcnn/segment_ply.py", line 3, in <module>
  from plyfile import PlyData, PlyElement
ModuleNotFoundError: No module named 'plyfile'
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ pip install plyfile
Collecting plyfile
 Downloading plyfile-1.1.2-py3-none-any.whl.metadata (43 kB)
Requirement already satisfied: numpy>=1.21 in
/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages (from plyfile) (2.2.6)
Downloading plyfile-1.1.2-py3-none-any.whl (36 kB)
Installing collected packages: plyfile
Successfully installed plyfile-1.1.2
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python segment ply.py
Using device: cuda
Traceback (most recent call last):
 File "/home/intern/Desktop/pvcnn/segment ply.py", line 74, in <module>
  main()
 File "/home/intern/Desktop/pvcnn/segment_ply.py", line 49, in main
  points = read_ply_xyz_binary(ply_path)
 File "/home/intern/Desktop/pvcnn/segment ply.py", line 17, in read ply xyz binary
  plydata = PlyData.read(ply_path)
 File "/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/plyfile.py", line
157, in read
  (must close, stream) = open stream(stream, 'read')
```

```
File "/home/intern/miniconda3/envs/pvcnn env/lib/python3.10/site-packages/plyfile.py", line
1347, in _open_stream
  return (True, open(stream, read or write[0] + 'b'))
FileNotFoundError: [Errno 2] No such file or directory: 'zed out.ply'
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python segment ply.py
Using device: cuda
Loaded 90032 points.
Class 'DontCare' points: 15074
Class 'Pedestrian' points: 14995
Class 'Cyclist' points: 14959
Class 'Car' points: 14949
Class 'Truck' points: 15168
Class 'Misc' points: 14887
Saved segmented point cloud to /home/intern/Desktop/zed_out_segmented.ply
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python load.py
RPly: Unable to open file
[Open3D WARNING] Read PLY failed: unable to open file:
/home/intern/Desktop/zed out segmented.ply.ply
PointCloud with 0 points.
Number of points: 0
[Open3D WARNING] The number of points is 0 when creating axis-aligned bounding box.
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python load.py
RPIv: Error reading 'blue' of 'vertex' number 90031
[Open3D WARNING] Read PLY failed: unable to read file: /home/intern/Desktop/zed out.ply
Point cloud has 90032 points.
[1.449896 1.939521 -5.215951]
[1.454717 1.938715 -5.213784]
[1.459409 1.937744 -5.211174]
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python load.py
Loaded 90032 points with colors
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python load.py
Loaded 90032 points with colors
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python segment ply.py
Using device: cuda
Error reading PLY file: [Errno 2] No such file or directory: 'zed out.ply'
(pvcnn env) intern@dse-MS-7D09:~/Desktop/pvcnn$ python segment plv.pv
Using device: cuda
Loaded 90032 points.
```

Point distribution by class:

DontCare : 14935 points (16.6%) Pedestrian : 14979 points (16.6%) Cyclist : 14869 points (16.5%)
Car : 15103 points (16.8%)
Truck : 15013 points (16.7%)
Misc : 15133 points (16.8%)

(pvcnn\_env) intern@dse-MS-7D09:~/Desktop/pvcnn\$ python segment\_ply.py

Error reading PLY file: [Errno 2] No such file or directory: 'home/intern/Desktop/zed\_out.ply'

(pvcnn\_env) intern@dse-MS-7D09:~/Desktop/pvcnn\$ python segment\_ply.py

Loaded 90032 points

Saved segmented point cloud to /home/intern/Desktop/zed\_out\_segmented.ply

# Segmentation Results:

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DontCare : 89155 points (99.0%)
Car : 877 points (1.0%)

(pvcnn\_env) intern@dse-MS-7D09:~/Desktop/pvcnn\$