

Supplemental Materials

Overview

This codebase contains implementations for “Chirality Nets for Human Pose Regression”.

- Chiral layers are implemented under `pose_chiral/chiral_layers`.
- A tutorial on chirality equivariance is under `demo/`.
- Test cases are implemented under `tests/`.

Submitted to 33rd Conference on Neural Information Processing Systems (NeurIPS 2019). Do not distribute.

Dependencies

- Python 3+
- Pytorch ≥ 1.0
- unittest

How to run tests

Run the following in the `supp_code` directory. `~ nosetests -nocapture ~`

Expected results.

Tests batchnorm equivariance at test time.
Difference expected chiral pairs: 0.0

.Tests batchnorm running mean and var updates.
.Test equivariance for conv1d layer, different in/out sym_group.
Difference expected chiral pairs: 1.1701751e-13

.Test equivariance for conv1d layer, sym_group [1,1,1].
Difference expected chiral pairs: 6.711298e-14

.Test equivariance for conv1d layer, sym_group [2,2,1].
Difference expected chiral pairs: 2.1044277e-13

.Tests equivariance on linear layer.
Difference expected chiral pairs: 0.0

.Tests equivariance of GRU.
Difference expected chiral pairs: 2.6402491e-15

.Tests equivariance of LSTM.
Difference expected chiral pairs: 3.608225e-15

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Ran 8 tests in 0.225s

OK