CNN Results: 20-35 Crossings

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The 88M-parameter CNN was fine-tuned on $\mathcal{D}_{\text{train}}$, validated on $\mathcal{D}_{\text{val}}$, and tested on $\mathcal{D}_{\text{test}}$, where:

$$|\mathcal{D}_{\text{train}}| = 448{,}000 \text{ diagrams,}$$

$$|\mathcal{D}_{\text{val}}| = |\mathcal{D}_{\text{test}}| = 56{,}000 \text{ diagrams,}$$

$$\mathcal{D} = \mathcal{D}_{\text{train}} \cup \mathcal{D}_{\text{val}} \cup \mathcal{D}_{\text{test}}.$$

For each split in $\mathcal{D}$, each knot had $n \in N$ crossings where $N = [20, 35]$. For all splits, and all values of n, there was a exact parity of knots and unknots and there were an equal number of diagrams for each value of $n \in N$.

Example Knot Diagrams in $\mathcal{D}$

Lorem Ipsum