

Context tree weighting

The **context tree weighting method (CTW)** is a **lossless compression** and prediction algorithm by **Willems, Shtarkov & Tjalkens 1995**. The CTW algorithm is among the very few such algorithms that offer both theoretical guarantees and good practical performance (see, e.g. **Begleiter, El-Yaniv & Yona 2004**). The CTW algorithm is an “ensemble method,” mixing the predictions of many underlying variable order **Markov models**, where each such model is constructed using zero-order conditional probability estimators.

1 References

- Willems; Shtarkov; Tjalkens (1995), *The Context-Tree Weighting Method: Basic Properties* **41**, IEEE Transactions on Information Theory
- Begleiter; El-Yaniv; Yona (2004), *On Prediction Using Variable Order Markov Models* (PDF) **22**, Journal of Artificial Intelligence Research: *Journal of Artificial Intelligence Research*, pp. 385–421

2 External links

- Relevant CTW papers and implementations
- CTW Official Homepage

3 Text and image sources, contributors, and licenses

3.1 Text

- **Context tree weighting** *Source:* https://en.wikipedia.org/wiki/Context_tree_weighting?oldid=564559634 *Contributors:* Brianhe, RHa-worth, Skittleys, Emeraude, Svick, Bug.lighter, Bug.lighter2, Addbot, Citation bot, Omnipaedista, Citation bot 1, ZéroBot, Csc300h and Anonymous: 4

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