DSL for ML An Annotated Bibliography

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October 7, 2025

References

[AIM17] Martín Abadi, Michael Isard, and Derek G Murray. A computational model for tensorflow: an introduction. In *Proceedings of the 1st ACM SIGPLAN International Workshop on Machine Learning and Programming Languages*, pages 1–7, 2017.

This paper discusses how TensorFlow works under the hood, by explaining a very limited version of TensorFlow's dataflow computational model. The limited version contains variables, tensors, and read and write operations on variables. The authors explain the semantics of these operations, and how the dataflow graph behaves.

[IKS+18] Mike Innes, Stefan Karpinski, Viral Shah, David Barber, PLEPS Saito Stenetorp, Tim Besard, James Bradbury, Valentin Churavy, Simon Danisch, Alan Edelman, et al. On machine learning and programming languages. Association for Computing Machinery (ACM), 2018.

This paper argues that a new language for machine learning is needed. There are various arguments: libraries like TensorFlow are already languages in themselves, current languages work as meta-languages, and a new language could improve certain features.