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Composable Bayesian Inference with BlackJAX

BlackJAX is a library implementing sampling and variational inference algorithms commonly used in Bayesian computation. It is designed for ease of use, speed, and modularity by taking a functional approach to the algorithm's implementation. Designed from basic components to specific iterative procedures, BlackJAX allows the end user to build and experiment with new algorithms by composition. BlackJAX is written in pure Python using JAX to compile and run NumpPy-like programs on CPUs, GPUs and TPUs. The library integrates well with probabilistic programming languages by working directly with the (unnormalized) target log density function, given that the function is pure. The library is intended for users who need to create complex sampling mechanisms beyond the black-box solution, researchers who want to experiment when developing new algorithms and students who want to learn how inference algorithms work.

Slot length

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