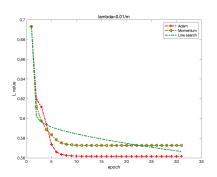
## Template

## Archer

## February 24, 2022



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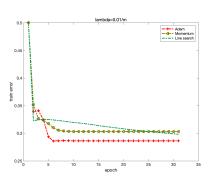


Figure 1: function value

Figure 2: gradient norm

Figure 3: classification error

Results on Covtype when  $\lambda = 0.01$ 

## References

- [1] Raghu Bollapragada, Richard H Byrd, and Jorge Nocedal. Exact and inexact subsampled newton methods for optimization. *IMA Journal of Numerical Analysis*, 39(2):545–578, 2019.
- [2] Ian Goodfellow, Yoshua Bengio, and Aaron Courville. Deep learning. MIT press, 2016.
- [3] Courtney Paquette and Katya Scheinberg. A stochastic line search method with convergence rate analysis. arXiv preprint arXiv:1807.07994, 2018.