Reading Materials for SCMS Machine Learning Course

compiled by Tianyu Wang

2023

Here is the list of reading materials for the SCMS machine learning course.

References

Amelunxen, D., Lotz, M., McCoy, M. B., and Tropp, J. A. (2014). Living on the edge: phase transitions in convex programs with random data. *Information and Inference: A Journal of the IMA*, 3(3):224–294.

Gross, D. (2011). Recovering low-rank matrices from few coefficients in any basis. *IEEE Transactions on Information Theory*, 57(3):1548–1566.

Li, G., Shi, L., Chen, Y., and Chi, Y. (2022). Breaking the sample complexity barrier to regret-optimal model-free reinforcement learning. *Information and Inference: A Journal of the IMA*, 12(2):969–1043.

Nesterov, Y. (2008). Accelerating the cubic regularization of newton's method on convex problems. *Mathematical Programming*, 112(1):159–181.

Nesterov, Y. and Polyak, B. T. (2006). Cubic regularization of newton method and its global performance. *Mathematical Programming*, 108(1):177–205.

Plan, Y. and Vershynin, R. (2013). One-bit compressed sensing by linear programming. *Communications on Pure and Applied Mathematics*, 66(8):1275–1297.

Plan, Y. and Vershynin, R. (2014). Dimension reduction by random hyperplane tessellations. *Discrete & Computational Geometry*, 51(2):438–461.

Su, W., Boyd, S., and Candès, E. J. (2016). A differential equation for modeling nesterov's accelerated gradient method: Theory and insights. *Journal of Machine Learning Research*, 17(153):1–43.

Tang, G., Bhaskar, B. N., Shah, P., and Recht, B. (2013). Compressed sensing off the grid. *IEEE Transactions on Information Theory*, 59(11):7465–7490.