

Essay title

Machine Learning, Advanced Course/DD2434/mladv24

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1.1

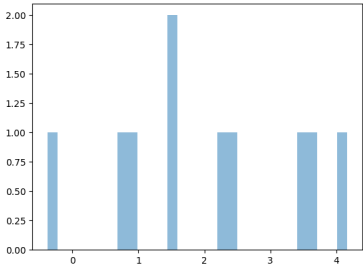


Figure 1: N=10

1.2

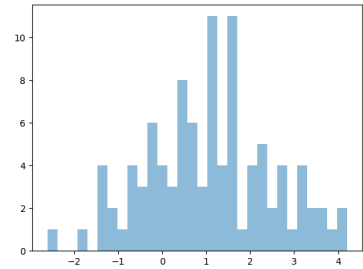


Figure 2: N=100

1.2.7

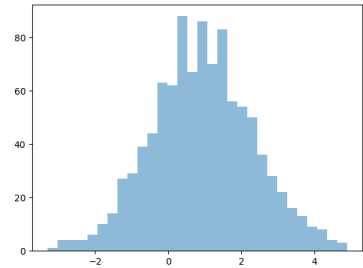


Figure 3: N=1000

We implement a function that generates a dataset of  $N$  points in the plane, where each point is drawn from a normal distribution with mean  $\mu$  and precision  $\tau$ . For reproducibility we set the seed of the random number generator to 0. We generate datasets for  $N = 10, 100, 1000$  and plot the generated values as histograms, which results in figure Figure 4.

Figure 4: Histograms of generated datasets

We see that the more datapoints we have the more the histogram resembles a normal distribution which is as expected.

## References

- [1] Tom L. Beauchamp and Oliver Rauprich. “Principlism”. In: *Encyclopedia of Global Bioethics*. Springer International Publishing, 2015, pp. 1–12. DOI: 10.1007/978-3-319-05544-2\_348-1. URL: [https://doi.org/10.1007/978-3-319-05544-2\\_348-1](https://doi.org/10.1007/978-3-319-05544-2_348-1).