Statistics and data analysis

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Summary

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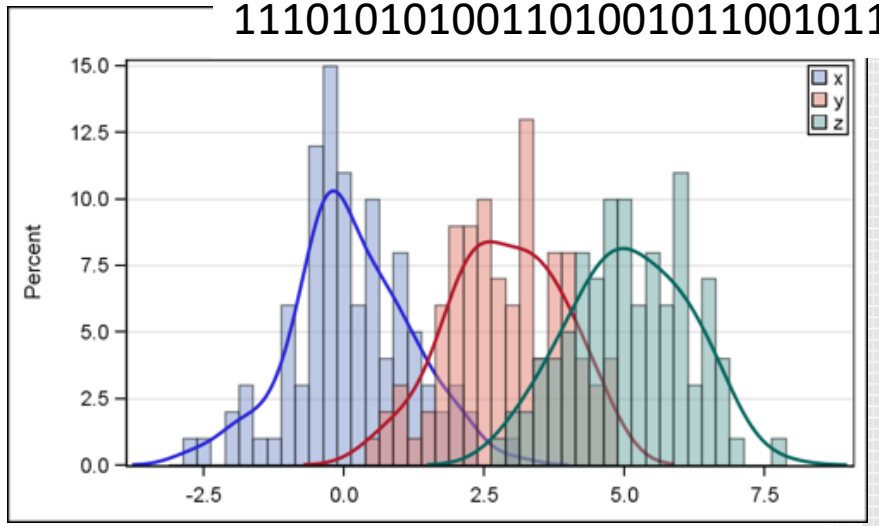

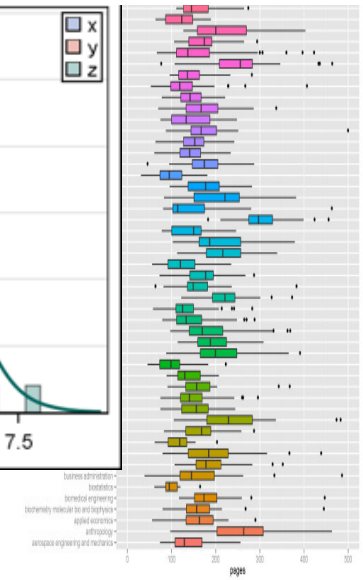

Distributions and basics

- Discrete: Uniform, Bernoulli, Binomial, Multinomial, Poisson, Geometric, Neg-binomial, hypergeometric
- Continuous (in $\mathbb{R}^d$): Uniform, Gauss, inc multivariate, GMMs, log-normal
- Expectation, variance, covariance
- CDF, PDF
- Correlations: Pearson, Kendall, Spearman
- Independence: mutual and lower order; conditional independence
- Confidence intervals for proportions
- Histograms, visualization tools and approaches
- WRS, t-Test

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Verticals and more concepts

- Heavy tails
- CLT, Tchebichef
- Conditional independence
- Coupon collector
- Confidence intervals for correlations; Fisher Transform
- MLE, EM
- Convolution
- Inverse sampling
- Markov Chains
- Bayesean inference – credibility intervals
- Higher moments
- Kendall-Knight
- FDR, Bonferroni procedures

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