

- 1) Vector space and its properties
- 2) Solve eqⁿ using LU decomposition, Cholsky decomposition
- 3) Perform LU on matrix
- 4) Linear Independence. (definition & example)
- 5) Eigen vector Eigen value
- 6) Basis of subspace (definition)
- 7) Define inner product and properties
- 8) ~~Gram~~ Gram Schmidt step
- 9) Solve equation by Gaussian Elimination
- 10) SVD and application
- 11) Calculate SVD of a matrix
- 12) Simple linear regression
- 13) PCA and steps involved in dimensionality reduction
- 14) Covariance and correlation
- 15) Logistic regression and parameter estimations for logistic regression
- 16) SVM, hyperplane and margin
- 17) Normal distribution and its parameters
- 18) Bell curve
- 19) Expected value, variance of random variable
- 20) Formula for the variance of random variable