

Multivariate Normal Density Function
For vector \mathbf{x} , of length n

$$f(\vec{x}) = \frac{1}{(2\pi)^{\frac{n}{2}} |\Sigma|^{\frac{1}{2}}} e^{\left(-\frac{1}{2}(\vec{x}-\vec{\mu}_x)^T \Sigma_{\vec{x}\vec{x}}^{-1}(\vec{x}-\vec{\mu}_x)\right)}$$

Multivariate Normal Distribution



