

# NumPy Reference

Prepared for Deepthi – Python Data Analysis Library Reference

NumPy functions covering array creation (array, arange, linspace, zeros, ones, full, eye, identity, diag), reshaping (reshape, ravel, flatten, squeeze, expand\_dims), concatenation (concatenate, stack, hstack, vstack), splitting (split, array\_split), selection (where, select, clip, unique, intersect1d, union1d, setdiff1d, isin), sorting (sort, argsort), indexing, and arithmetic operations (add, subtract, multiply, divide, power, mod). Mathematical functions (sqrt, exp, log, sin, cos, tan, floor, ceil, round), statistical functions (mean, median, std, var, percentile, quantile, nanmean, nanstd, nansum), random (default\_rng, normal, integers, choice, permutation), linear algebra (dot, inner, outer, norm, inv, solve, det, eig, svd), FFT (fft, ifft), datetime64, timedelta64, and file I/O (save, load, savez).