

NumPy Array Operations - Quick Reference

Basic Arithmetic Operations

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| Add: | <code>arr + 5</code> |
| Subtract: | <code>arr - 2</code> |
| Multiply: | <code>arr * 3</code> |
| Divide: | <code>arr / 2</code> |
| Power: | <code>arr ** 2</code> or <code>np.power(arr, 2)</code> |

Mathematical Functions

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|----------------------|----------------------------|
| Square root: | <code>np.sqrt(arr)</code> |
| Exponential: | <code>np.exp(arr)</code> |
| Logarithm (natural): | <code>np.log(arr)</code> |
| Absolute value: | <code>np.abs(arr)</code> |
| Round: | <code>np.round(arr)</code> |
| Floor: | <code>np.floor(arr)</code> |
| Ceil: | <code>np.ceil(arr)</code> |

Statistical Functions

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|---------------------|-----------------------------|
| Minimum: | <code>np.min(arr)</code> |
| Maximum: | <code>np.max(arr)</code> |
| Sum: | <code>np.sum(arr)</code> |
| Mean (Average): | <code>np.mean(arr)</code> |
| Median: | <code>np.median(arr)</code> |
| Standard Deviation: | <code>np.std(arr)</code> |
| Variance: | <code>np.var(arr)</code> |

Other Useful Operations

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|---------------------|-------------------------------------|
| Sort: | <code>np.sort(arr)</code> |
| Reverse: | <code>arr[::-1]</code> |
| Unique elements: | <code>np.unique(arr)</code> |
| Clip values: | <code>np.clip(arr, min, max)</code> |
| Cumulative sum: | <code>np.cumsum(arr)</code> |
| Cumulative product: | <code>np.cumprod(arr)</code> |