# 空间open3d：

import open3d as o3d

Coord-Sys: X (Right), Y (Up), Z (Out)

## 读写io：

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| read\_point\_cloud(file) / write\_point\_cloud(file, pcd) | 加载 / 写入点云 |
| read\_triangle\_mesh(file) | 加载网格 |

## 几何geometry：

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| PointCloud | | 点云 |
| 实例属性 | points: utility.Vector3dVector | **点集** |
| colors: utility.Vector3dVector | **RGB** |
| 实例方法 | voxel\_down\_sample(size) | **返回**降采样点云 |
|  | transform(T) | **返回**变换点云 |

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| KDTreeFlann(pcd) | | KD-Tree |
| 实例方法 | set\_geometry(pcd) | 重建 |
| search\_knn\_vector\_xd(vec, knn) | **返回**KNN |
| search\_radius\_vector\_xd(vec, radius) | **返回**半径搜索 |
| search\_hybrid\_vector\_xd(vec, radius, max\_nn) | **返回**混合搜索 |

## 可视化visualization：

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| draw\_geometries(geometries) | 绘制 |