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| point\_representation.h | |
| PointRepresentation | 将点云数据转换成n维向量 |
| DefaultPointRepresentation | 继承PointRepresentation定义默认行为 |

PCL源码中的每个类：

①都有一个shared\_ptr指针Ptr以及常shared\_ptr指针ConstPtr

②所有成员变量以下划线 \_ 作为后缀

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| Vertices.h | |
| Vertices | 定义多边形网格的顶点，数据存储在索引数组中 |

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| PolygonMesh.h | |
| PolygonMesh | PolygonMesh的结构如下：header、cloud及polygons |

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| PCLHeader.h | |
| PCLHeader | PCLHeader的结构如下：序号seq、获得数据的时间戳stamp、坐标系标识frame\_id |

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| point\_cloud.h | |
| NdCopyPointEigenFunctor | 将Eigen的数据类型转化成PointT |
| PointCloud | 该类用于存储3D点数据 |

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| PCLPointField.h | |
| PCLPointField | PCLPointField包括3个部分：offset(暂时不知道用处)、数据类型datatype、count(暂时不知道用处) |

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| PointIndices.h | |
| PointIndices | PointIndices包括两个部分：header和int类型数组indices |

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| PCLPointCloud.h | |
| PCLPointCloud2 | 可能是PointCloud的版本2 |

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| pcl\_base.h | |
| PCLBase | 大部分和PCL有关的算法都会用到，主要包含了一个点云数据集PointCloud |