## Classifier

- + virtual void trainOrientation (std::string)=0
- + virtual void predictOrientation (double, double, double)=0
- + virtual void predictOrientation (std::string)=0

## Data

- double x
- double y
- double z
- int o
- + Data()
- + Data(Data &)
- + Data(double, double, double, int)
- + double getX(void)
- + double getY(void)
- + double getZ(void)
- + int getO(void)
- + void setX(double)
- + void setY(double)
- + void setZ(double)
- + void setO(int)
- + double getDistanceFrom (Data)
- + std::string getOrientation (void)
- + Data operator=(Data)

/ -dataPoints -testingPoints

## **NNClassifier**

- + void trainOrientation (std::string) override
- + void testingOrientation
  (std::string)
- + void predictOrientation (double, double, double) override
- + void predictOrientation (std::string) override
- + Data & nearestNeighbour (Data)