

Lab 08-9 Class Diagram

Chunky Monkey | April 14, 2023

Node (struct)

+ x:float
+ y:float
+ z:float
+ label:int
+ next:NODE*

PhoneOrientation

+ learnOrientation(string):void
+ predictOrientation(float, float, float):void
+ predictOrientation(string):void

NNClassifier

- x:float = 0
- y:float = 0
- z:float = 0
- label:int = 0
- head:NODE* = nullptr

+NNClassifier()
+ setX(x:float):void
+ setY(y:float):void
+ setZ(z:float):void
+ setLabel(label:int):void
+ setHead(head:NODE*):void
+ getX():float
+ getY():float
+ getZ():float
+ getLabel(): int
+ getHead():NODE*
+ ~NNClassifier()
+ nearestNeighbour(n:NODE*):float
+ decideOrientationName(nearestLabel:int):string
+ learnOrientation(string):void
+ predictOrientation(float, float, float):void
+ predictOrientation(string):void
+ friend setAttributes(fin:ifstream&, orientation:NNClassifier&): void
+ friend operator<<(fout:ofstream&, orientation:NNClassifier&):ofstream&

DummyClassifier

+ learnOrientation(string):void
+ predictOrientation(float, float, float):void
+ predictOrientation(string):void

KNNClassifier

+ learnOrientation(string):void
+ predictOrientation(float, float, float):void
+ predictOrientation(string):void

testPhoneOrientation

+ testOrientation(fileName:string, head:NODE*):void

