



## Graph

Nodes (vertices) connected by Edges

### Graph Types

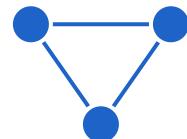
Directed

Undirected

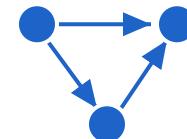
Weighted

Attributed

### Undirected



### Directed



### Graph Properties



**Degree:** # of connections

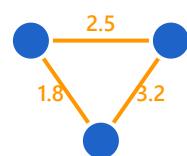


**Density:** edge ratio

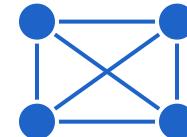


**Clustering coeff:** local structure

### Weighted



### Complete



**Challenge**

Traditional ML assumes Euclidean space → Need

### Representations

Adjacency Matrix

Edge List

### Applications

Social Networks

Molecules

Knowledge Graphs