PySTEMM: The Tool

Make Models

Define Concept

Make Instances

Choose Visualization:
- ***showAttr***
- ***showEval***
- ***showGraph***
- ***animate***
- ****....***

Modeling

Model
A collection of ***Concepts***
Traverse ***Concepts***, ***Instances***, *and related* ***attributes*** *for View to display via* ***templates***.

Concept
attributes and their type
functions
visualization templates

(Loose Model)
Build some instances without a pre-defined concept. Test if such a ***loose instance*** *can be viewed as some* ***Concept***.

add node *(Concept or Instance, style)*

add edge *(Concepts or Instances, style)*

Visualization

View
Collection of Nodes, Edges

Node
individual shape to draw

Edge
line connecting Nodes

Track nodes, edges, styles. Display and layout by scripting drawing app

make shape *(Circle, Square, ..., color, border, ..., label text)*

connect shapes *(s1, s2, color, line style, label text)*

layout *(style)*

Rendering

Commercial Scriptable Drawing Application

External Software:

traits	*represent type info. for attributes ensure only valid values assigned*
inflect	*polished narrative e.g. "a" vs. "an"*
appscript	*script the Drawing Application*

inspect	*find classes, methods, source code*
numpy, pylab	*numerical integration, plotting*
pylpsolve	*solve integer linear propgramming*
Python	*flexible & dynamic can pass, store, & return functions*

PySTEMM: The Model Library

Math, Physics, Chem, Bio, Engg

User's Models

declarative, focus on concept structure, use "pure" functions, selectively visualize