**Printability Computation code**

How to use it?

Call the basic function computePrintability (data, technology, application)

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| Args |  |
| *Dictionary* data | Refers to CAD’s dimensions for each design characteristic. Data must be a Python dictionary with a specific format. |
| *Int* technology | Defines the 3d printing technology among three: ***0*** (FDM), ***1*** (Material jetting) or ***2*** (Binder jetting). |
| *Int* application | Specifies the application for which the model is intended: ***0*** (Biomedical), ***1*** (Mechanical) or ***2*** (Artistic). |

Each design feature has no or many inputs. Each entry is a list of the dimension and the prediction of the dimensional error (optional). The CAD and STL areas can only have one input. Everything are considered to be floats and millimeters.

*Dictionary* format:

{'Holes': [[dimension, dimensional error], [ , ], …],

'Pins': [[ , ], …],

'Supported\_walls': [[ , ], …],

'Unsupported\_walls': [[ , ], …],

'Empossed\_details\_width': [[ , ], …],

'Empossed\_details\_height': [[ , ], …],

'Engraved\_details\_width': [[ , ], …],

'Engraved \_details\_height': [[ , ], …],

'Thin\_features': [[ , ], …],

'Area\_CAD': [ ],

'Area\_STL': [ ]  
}

|  |  |
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| Output |  |
| *Float* output | % Pintability Score |

Dependencies:

* Python 2.7 or later
* NumPy