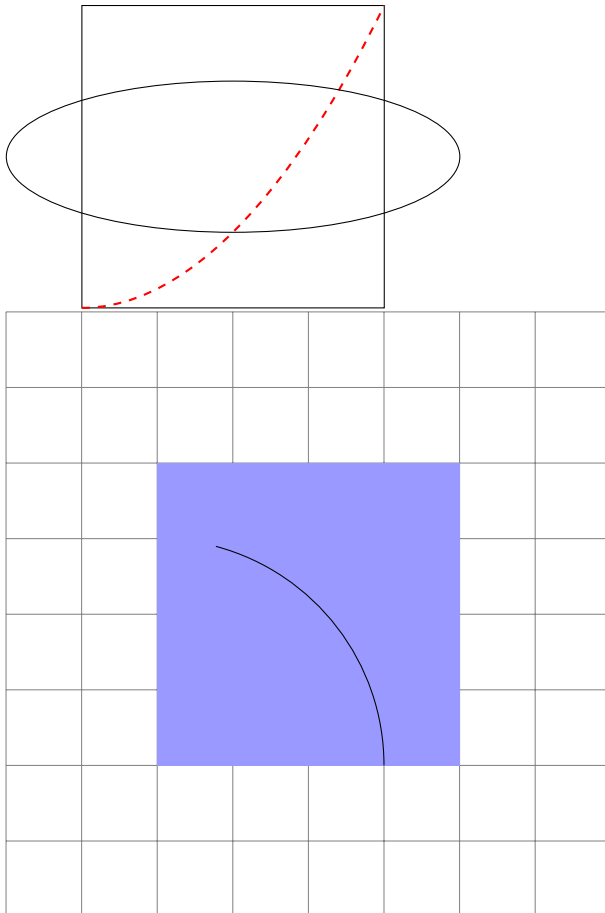# tikz

keke

June 28, 2024

1 History

The original German text of TikZ is TikZ ist kein Zeichenprogramm, which is a recursive acronym for "GNU's Not Unix!".

There are many tikz examples on this site: https://texample.net/tikz/examples/

Some other starters:

- https://www.overleaf.com/learn

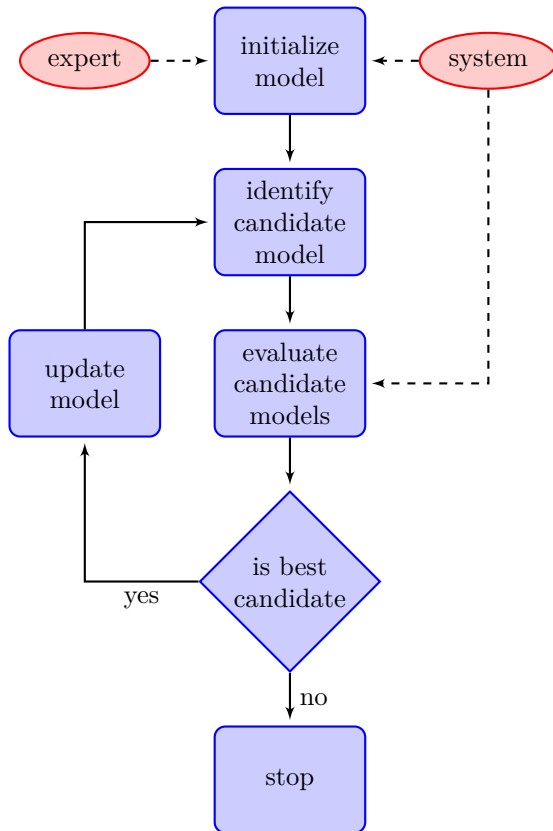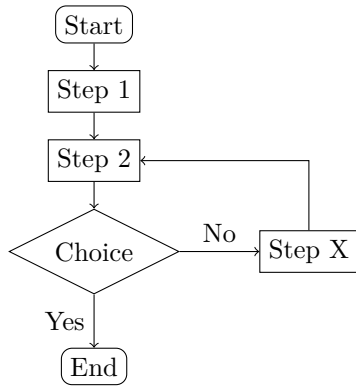- https://github.com/Hansimov/pgfmanual-zh
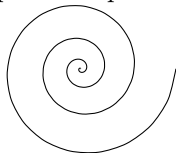
2 Basic Commands
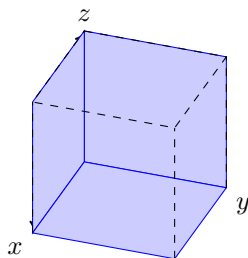
My Rectangle

3 Advanced tikz

We can also create more complex shapes using the path command, which allows us to specify a sequence of points through which the path should pass. Here's an example of a spiral:
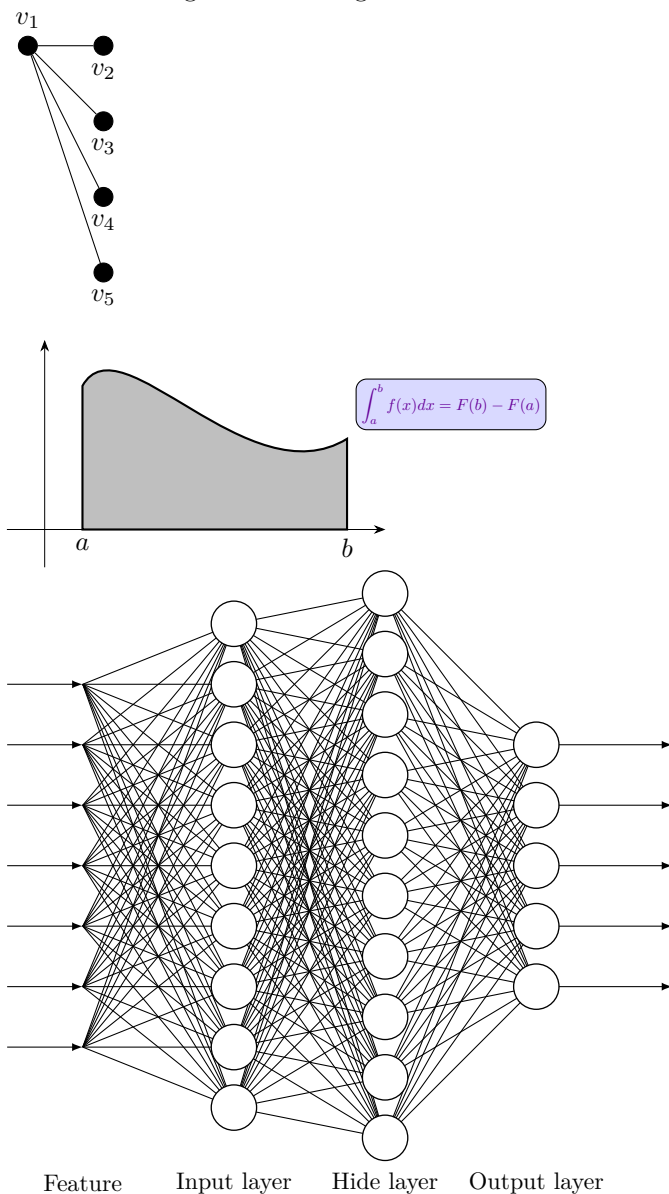
This code creates a spiral by plotting a parametric function, where r converts degrees to radians and 0.05 determines the distance between each turn of the spiral. Another example is to use tikz to draw 3D pic.

The code then draws the x, y, and z axes using the thick and -> options to make them stand out and indicate their direction. The cube itself is drawn using the draw and fill options to create the edges and faces, respectively.Finally, dashed lines are added to indicate the hidden edges of the cube that are not visible from the current viewpoint.

4 Marvellous

You can never imagine how strong Tikz is!

$$\int_a^b f(x)dx = F(b) - F(a)$$

Feature   Input layer   Hide layer   Output layer

5 Conclusion

Personally, I don't use tikz as the main drawing tool for latex. It may be more to use python/mathematica to make the picture first, and then put the picture into latex. But tikz is indeed a very powerful tool (used in 286 small papers, consistent with the overall style of latex), not only the pictures are beautiful, but also because tikz pictures can be directly modified in latex.

More can be inquired at:

- https://ctan.mirrors.hoobly.com/info/visualtikz/VisualTikZ.pdf

- https://www.cnblogs.com/qizhou/p/13040159.html