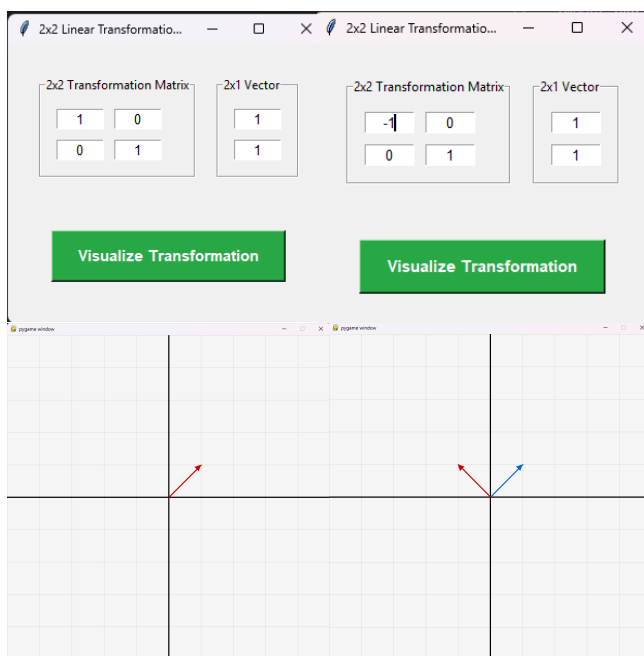Wesley Leon
Linear Algebra
Honner

Using NumPy, Tkinter, and Pygame, I created a small program that takes a 2x2 matrix and a 2x1 vector, and animates the transformation. It also shows the basis vectors and the grid transformation.

The program opens up a tkinter window that prompts you to input a 2x2 matrix and a 2x1 vector. Visualizing the transformation opens a PyGame window showing the vector interpolating to its transformed position.

UI examples for identity and reflection along the y-axis.

Visual of graph skew and basis vectors.