Fractals: Visualization with Variation in Affine Transformation

Linear Algebra - Spring 2019

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- **What are Fractals?**
  - Types of fractals (affine transformations)
  - Examples of common fractals (Koch Curve, Sierpinski Triangle) and how to make them mathematically
  - Fractals in Nature (river deltas, trees, spirals)

- **Creating Fractals in Images**
  - Use java program to create image using matrices
  - Perform Affine Transformation on matrices to create fractal visualizations
  - Display intermediate matrix visualizations during Affine Transformation
  - Show and explain code from java program
  - Discuss algorithm used and why it was used
  - Emphasize how variation in fractal creation affects final fractal