This document will describe what each python file does:

Most Important Ones:

1. **Graph 12 Panel Bilateral Filter** - script containing a function used to generate all the graphs that use bilateral filter
2. Linear Analysis of Independent Variables - used to generate plots on the fCO2 vs Omega Aragonite
3. Exploring Relationship between variables - used to generate plots that have linear relationships between the five main independent variables, as well as the PCA and clustering analysis
4. Animating CO2 and time - used to create an animation of the boat trip
5. Animation for talk - converts the 12 panel heatmap into an animation