

Following through Jousef Murad's Matlab tutorial I was able to quickly pick up some of the basics of the tools available to me. First off I learned how to define and store variables, and manipulate vectors and matrices. Then I followed through arguably the most important part of the video which was to learn how to create my own scripts and functions. The script section dealt heavily with how to script out the plotting tools in Matlab. The function section was fairly brief but I understand how it works and have many ideas on how I would approach implementing a salting and smoothing function for my project.

Source: [▶ Learn MATLAB in ONE Video!](#)

Using my new knowledge on scripting in matlabs, I was able to adapt my PSS exponential function, salting, and smoothing code from PSS part 1 into MatLabs. My expFunc.m script calculates the equation $y=x^n$, calculating the first 25 points of the graph starting from whatever the initial x-value of the graph is. My salter.m script takes a dataset of [x,y] coordinates and salts through the data. Each point has a 33% chance to be replaced with a random number between the max value and zero, creating random noise through the graph. In the pssScript.m file it assigns a new y2 set with the salted y's. The final script I adapted into MatLabs was my smoothing function. My smoother.m script takes in the [x,y2] coordinates. It takes y2 as that is the variable that stores all of the salted y-values. Then in my pssScript.m file was able to create 3 new plots, one representing the base data, one containing the salted data, and the last one containing the smoothed data. Below is a screenshot containing the 4 scripts I created, and the output of the graphed datasets.

