RUBRIC FOR PORTFOLIO PIECE 1

Standard	Meets or exceeds standard	Approaching standard	Far below standard
APCSP DAT-2.D. Extract	The piece contains meaningful	The piece contains meaningful	The piece does not contain
information from data using a	visualizations of data originally	visualizations of data originally	meaningful data visualizations.
program.	stored in a CSV file. Labels, titles,	stored in a CSV file. Weak choices	
	and other features of the	of labels, title, or other features	
	visualizations contribute to a	partially obscure the meaning of	
	reader's ability to summarize and	the data.	
	interpret the data.		
NYS CS/DFLS 9-12.CT.3. Refine	The piece contains meaningful	The piece contains meaningful	The piece does not contain
and visualize complex datasets to	interpretations of data	interpretations of data	meaningful interpretations of
tell different stories with the	visualizations. The piece contains	visualizations. Some elements of	data visualizations, or several
same dataset.	reasonable explanations for the	complete explanations for design	elements of the explanations
	design choices leading to the	choices may be incomplete or	contain conceptual errors.
	visualizations.	contain minor errors.	
NYS NG MLS AI-S.ID.1. Represent	The piece contains a complete	The piece contains a partial	The piece does not explain why
data with plots on the real	explanation of why histograms	explanation of why histograms	histograms are a good choice to
number line. And Al-S.ID.2.	are a good choice to represent	are a good choice to represent	represent the chosen dataset. Or,
Interpret differences in shape,	the chosen dataset. The piece	the chosen dataset. The piece	the piece does not contain
center, and spread in the context	contains reasonable commentary	contains reasonable or partially	commentary on the shape of the
of the datasets.	on the shape of the distributions.	incomplete commentary on the	distributions.
		shape of the distributions.	

RUBRIC FOR PORTFOLIO PIECE 2

Standard	Meets or exceeds standard	Approaching standard	Far below standard
APCSP DAT-2.C. Identify the	The piece describes a solution to	The piece partially describes a	The piece does address a choice
challenges associated with	the challenge of choosing	solution to the challenge of	of measures for center and
processing data.	appropriate measures of center	choosing appropriate measures	spread, or the piece does not
	and spread for a dataset. The	of center and spread for a	address missing values and
	piece contains code addressing	dataset. The piece contains code	outliers.
	the challenges posed by missing	addressing the challenges posed	
	values and outliers.	by missing values and outliers.	
NYS CS/DFLS 9-12.CT.1. Create a	The piece contains a prediction	The piece contains a partially	The piece does not contain a
simple digital model that makes	for a typical value based on the	justified prediction for a typical	prediction for a typical value.
predictions of outcomes.	model of the histogram together	value based on the model of the	
	with a measure of center.	histogram together with a	
		measure of center.	
NYS NG MLS AI-S.ID.3. Interpret	The piece contains well-reasoned	The piece contains explanations	The piece does not contain
differences in shape, center, and	and contextualized explanations	of the shape, center, and spread	explanations of the shape,
spread in the context of the	of the shape, center, and spread	of the data that contain minor	center, and spread of the data, or
datasets, accounting for possible	of the data.	errors, or are partially	these explanations contain
effects of extreme data points		incomplete.	several conceptual errors.
(outliers).			

RUBRIC FOR PORTFOLIO PIECE 3

Standard	Meets or exceeds standard	Approaching standard	Far below standard
APCSP DAT-2.A. Describe what	The piece contains an	The piece contains an	The piece does not contain an
information can be extracted	explanation of insights gained	explanation of insights gained	explanation of insights gained
from data.	from grouping the data and	from grouping the data and	form grouping the data and
	comparing the center, shape, and	comparing the center, shape, and	comparing the center, shape, and
	spread of each group.	spread of each group. The	spread of each group. Or, the
		explanation may contain minor	explanation contains several
		errors or omissions.	conceptual errors.
APCSP DAT-2.E. Explain how	The piece contains a	The piece contains a	The piece does not contain a
programs can be used to gain	demonstration of how Python	demonstration of how Python	demonstration of how Python
insight and knowledge from data.	and matplotlib can be used to	and matplotlib can be used to	and matplotlib can be used to
	gain insight and knowledge from	gain insight and knowledge from	gain insight and knowledge from
	data.	data. The code may contain	data. Or, the code contains
		minor errors or omissions.	several major errors or
			omissions.
NYS CS/DFLS 9-12.CT.3. Refine	The piece builds on the	The piece builds on the	The piece does not build on the
and visualize complex datasets to	interpretation begun in Pieces 1	interpretation begun in Pieces 1	interpretation begun in Pieces 1
tell different stories with the	and 2 by visualizing each group	and 2 by visualizing each group	and 2, because visualizations by
same dataset.	within a dataset. These	within a dataset. These	group contain conceptual errors
	visualizations by group	visualizations by group	or major omissions. Or, no new
	contribute to detailed	contribute to detailed	insight was described based on
	explanations of the data.	explanations of the data. These	the group histograms.
		explanations may contain minor	
		errors or omissions.	