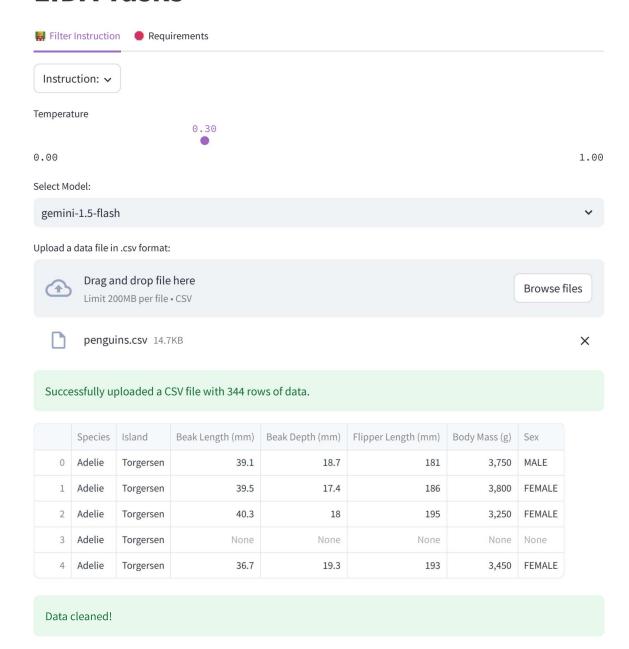


# **LIDA Tasks**

NTViz

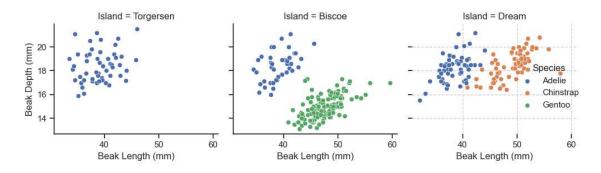


**Generate Charts** 

### **\*** Insight 0:

main() Goal Goal(question='How do beak length and depth vary across different penguin
species and islands?', visualization="Scatter plot matrix of 'Beak Length (mm)' vs 'Beak
Depth (mm)', colored by 'Species' and faceted by 'Island'", rationale='This
visualization will reveal potential correlations between beak...

A visualization goal	
index int	0
question str	'How do beak length and depth vary across different penguin species and islands?'
rationale str	'This visualization will reveal potential correlations between beak dimensions and species, and whether these correlations differ across islands. Using a scatter plot matrix allows for easy comparison of all pairwise relationships.'
visualization str	"Scatter plot matrix of 'Beak Length (mm)' vs 'Beak Depth (mm)', colored by 'Species' and faceted by 'Island'"



#### <u>\*\* 「つ・ま・?つ Download Chart \*</u>\*

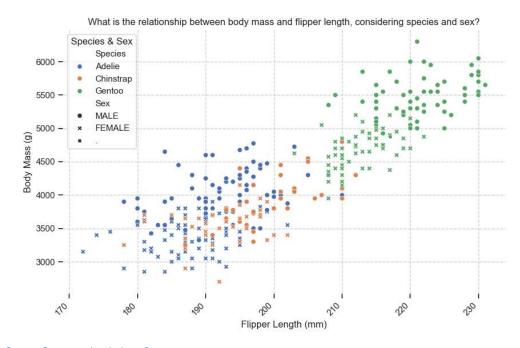


# **★** Insight 1:

main() Goal Goal(question='What is the relationship between body mass and flipper
length, considering species and sex?', visualization="Scatter plot of 'Body Mass (g)' vs
'Flipper Length (mm)', colored by 'Species' and shaped by 'Sex'", rationale='This will
show if larger penguins tend to have longer flippers, ...

#### A visualization goal

index int	1
question str	'What is the relationship between body mass and flipper length, considering species and sex?'
rationale str	'This will show if larger penguins tend to have longer flippers, and if this relationship varies across species and sexes. Color and shape encoding effectively distinguishes the categorical variables.'
visualization str	"Scatter plot of 'Body Mass (g)' vs 'Flipper Length (mm)', colored by 'Species' and shaped by 'Sex'"



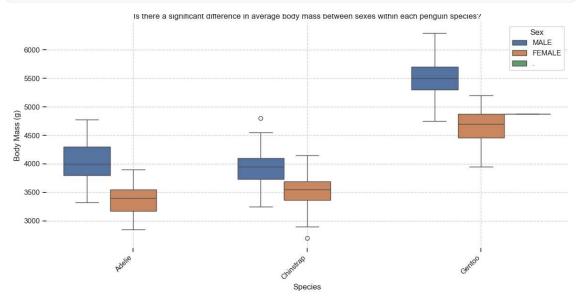
#### \*\* 「つ・・・?つ Download Chart \*\*



### **★** Insight 2:

main() Goal Goal(question='Is there a significant difference in average body mass
between sexes within each penguin species?', visualization="Box plot of 'Body Mass (g)'
grouped by 'Species' and 'Sex'", rationale='Box plots effectively compare the
distribution of body mass across sexes within each species, high...

A visualization goal	
index int	2
question str	'Is there a significant difference in average body mass between sexes within each penguin species?'
rationale str	'Box plots effectively compare the distribution of body mass across sexes within each species, highlighting median, quartiles, and outliers. This helps identify statistically significant differences.'
visualization str	"Box plot of 'Body Mass (g)' grouped by 'Species' and 'Sex'"



<u>\*\* 「つ・ま・?つ Download Chart \*\*</u>

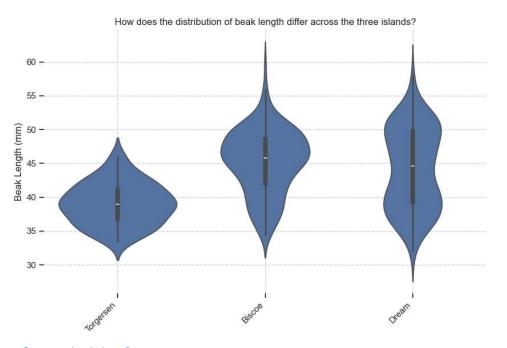


# \* Insight 3:

main() Goal Goal(question='How does the distribution of beak length differ across the
three islands?', visualization="Violin plot of 'Beak Length (mm)' grouped by 'Island'",
rationale="Violin plots combine the benefits of box plots (showing quartiles and median)
with kernel density estimation, providing a riche...

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A visualization goal	
index int	3
question str	'How does the distribution of beak length differ across the three islands?' $\label{eq:length}$
rationale str	"Violin plots combine the benefits of box plots (showing quartiles and median) with kernel density estimation, providing a richer understanding of the distribution's shape and potential multimodality across islands."
visualization str	"Violin plot of 'Beak Length (mm)' grouped by 'Island'"



\*\* 「つ・・・?つ Download Chart \*\*



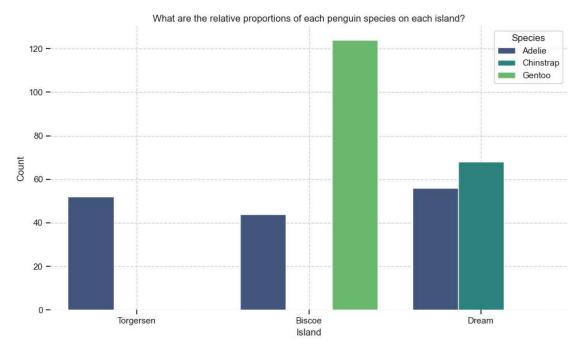
# \* Insight 4:

main() Goal Goal(question='What are the relative proportions of each penguin species on
each island?', visualization="Stacked bar chart showing the count of 'Species' for each
'Island'", rationale='A stacked bar chart effectively visualizes the proportions of each
species within each island. This avoids the mi...

A visualization goal	
index int	4
question str	'What are the relative proportions of each penguin species on each island?'
rationale str	'A stacked bar chart effectively visualizes the proportions of each species within each island. This avoids the misleading nature of pie charts when comparing proportions across categories.'
visualization str	"Stacked bar chart showing the count of 'Species' for each 'Island'"

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#### NTViz



#### <u>\*\*いつ・ま・?つ Download Chart \*\*</u>

