



VISUALIZING 1 BILLION STARS

AGENDA

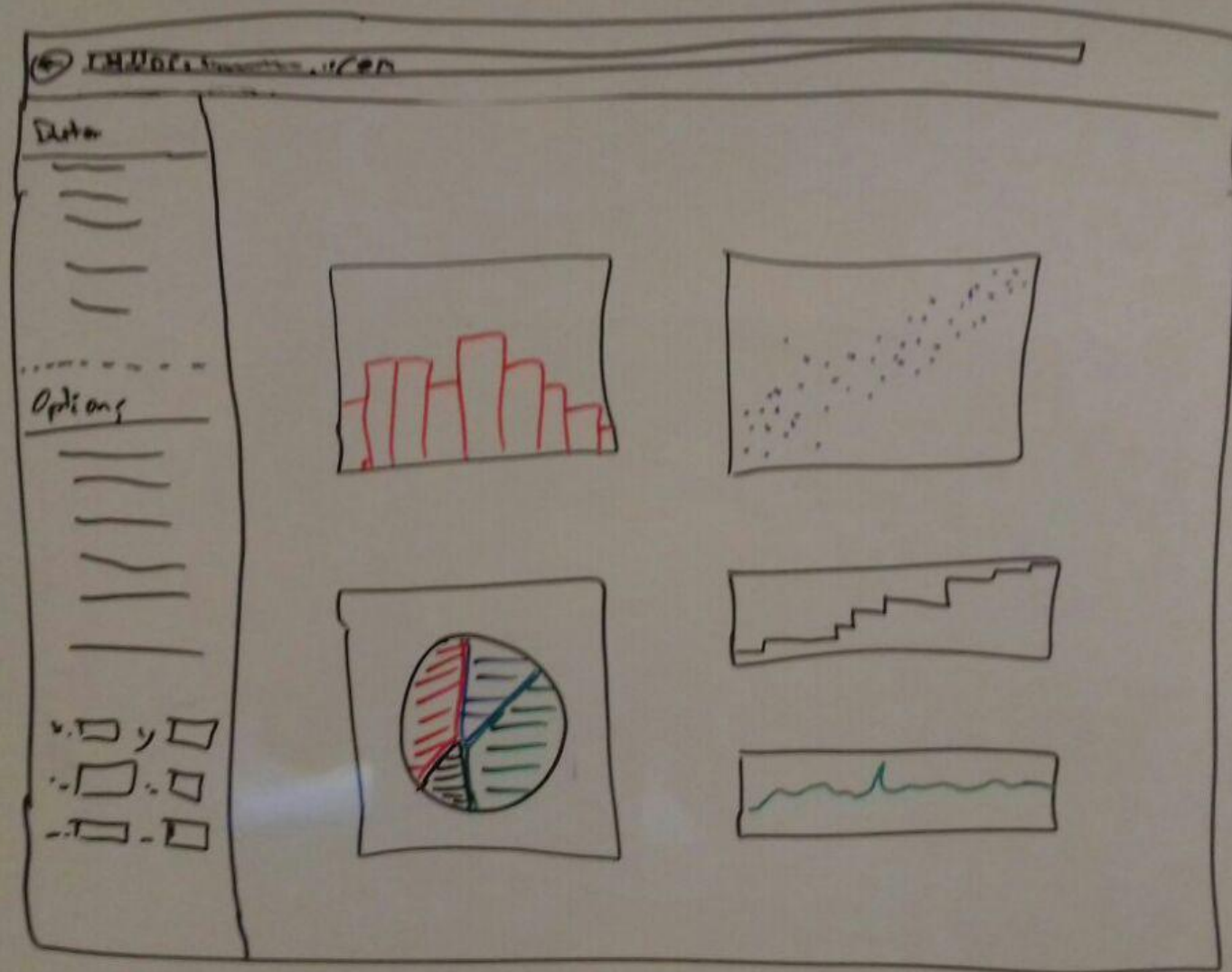
- INTRODUCTION
- LO-FI PROTOTYPE
- HI-FI PROTOTYPE
- CHALLENGES AND PROBLEMS

INTRODUCTION

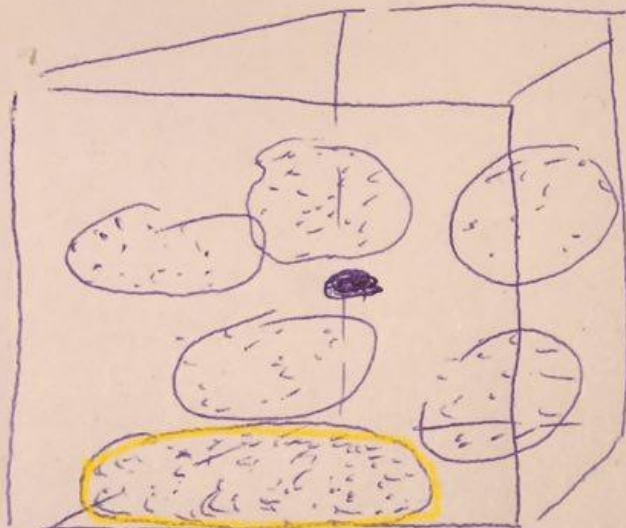
- TOPIC DESCRIPTION
- DATASET
- FICTITIOUS USER

LO-FI PROTOTYPE

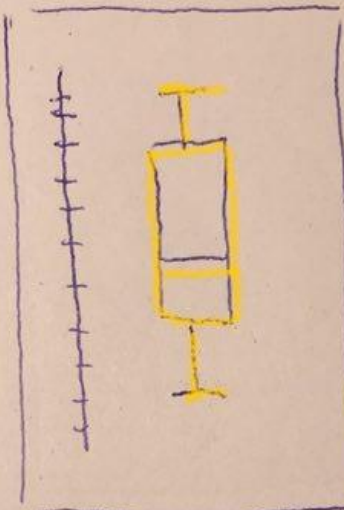
- FOCUS 3D PLOT
- SHOWING MOST IMPORTANT PARTS FROM DATASET
- LEARNING ABOUT THE DATA



One billion stars... (Dashboard 4)



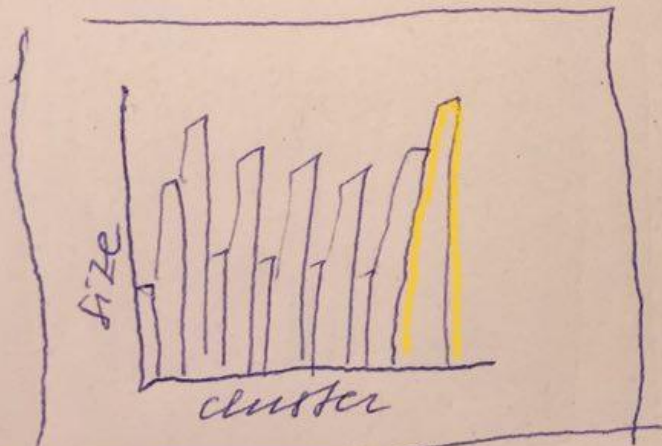
1. Stars clusters around sun



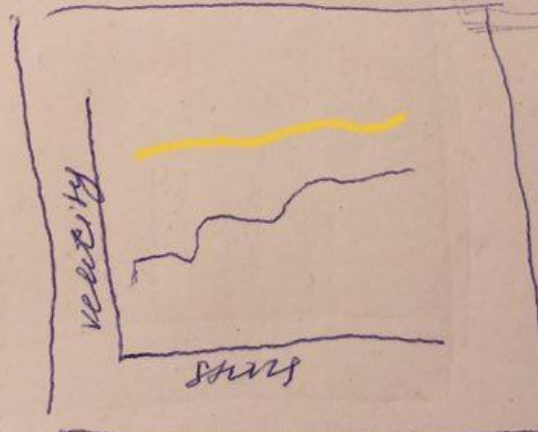
2. Entries of a specific cluster

New File
Load Data
Save
Save as
Help
About us

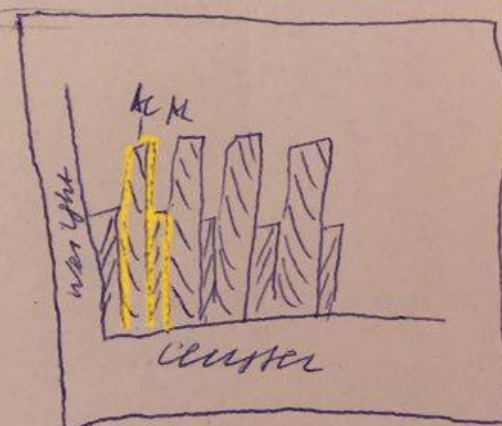
Data	Options
Name: ...	Add Plot
Entries: ...	Add Interaction
X Y Z E	Set scales: X Y Z



3. Size of specific star clusters



4. Velocities of stars in specific cluster



5. Weight

HI-FI PROTOTYPE

- FOCUS ON CORRELATIONS,
PATTERNS AND OUTLIERS IN
DATA
- LESS FOCUS ON DATA ITSELF

Data	
Datasetname:	Gaia Source
Rows:	64
Columns:	37

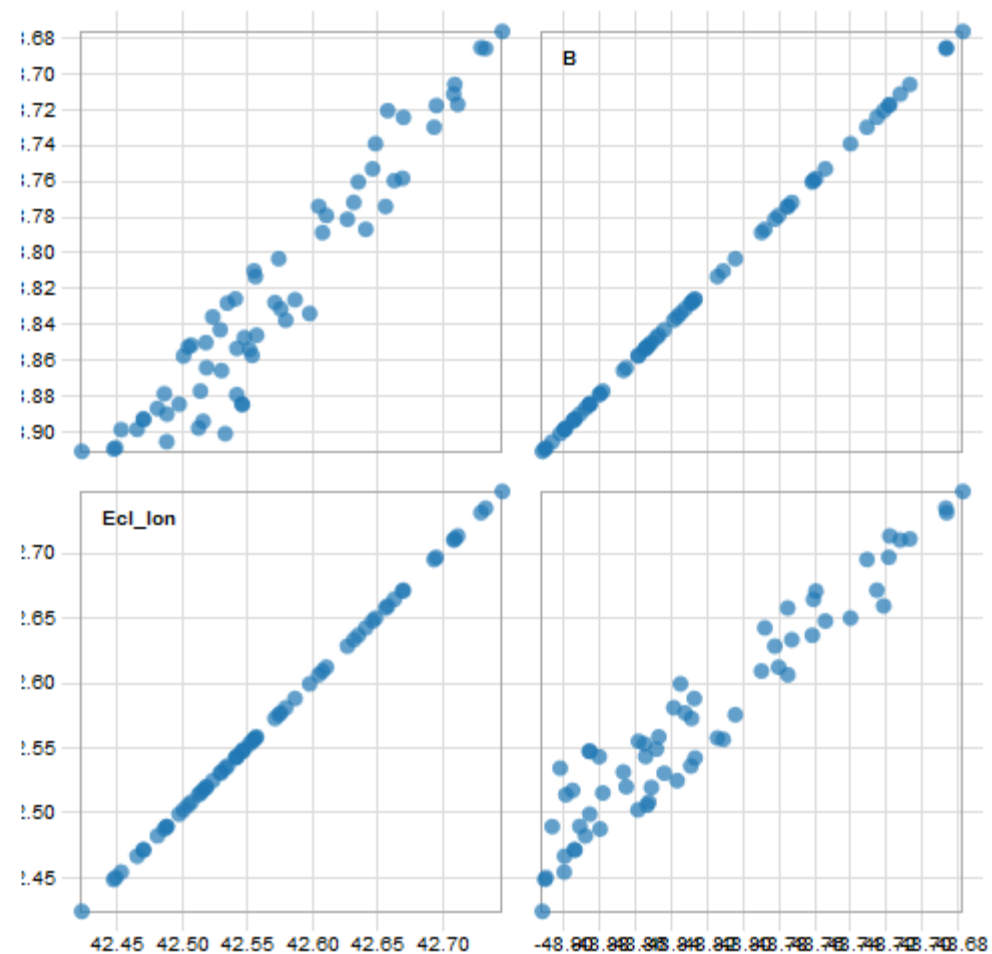
Data-Plots

Options	
Plotype:	<div><input type="radio"/> Scattermatrix</div> <div><input type="radio"/> Correlogram</div> <div><input type="radio"/> Histogram</div> <div><input type="radio"/> PCA</div>
Data Value	<div>solution_id</div>
#Bin <input type="checkbox"/>	<div>20</div>
Multiple Data	<div>solution_id</div> <div>source_id</div> <div>random_index</div> <div>ref_epoch</div> <div>ra</div>
<div>Plot</div>	
<div>Remove</div>	

Data	
Datasetname:	Gaia Source
Rows:	64
Columns:	37

Options	
Plottype:	<input checked="" type="radio"/> Scattermatrix <input type="radio"/> Correlogram <input type="radio"/> Histogram <input type="radio"/> PCA
Data Value	<div>solution_id</div>
#Bin	<input type="checkbox"/> 20
Multiple Data	<div> phot_g_mean_r l b ecl_lon ecl_lat </div>
Plot	
Remove	

Data-Plots



Data	
Datasetname:	Gaia Source
Rows:	64
Columns:	37

Options

Plottype:

☒ Scattermatrix
 ☐ Correlogram
 ☐ Histogram
 ☐ PCA

Data Value

solution_id

#Bin

☐

20

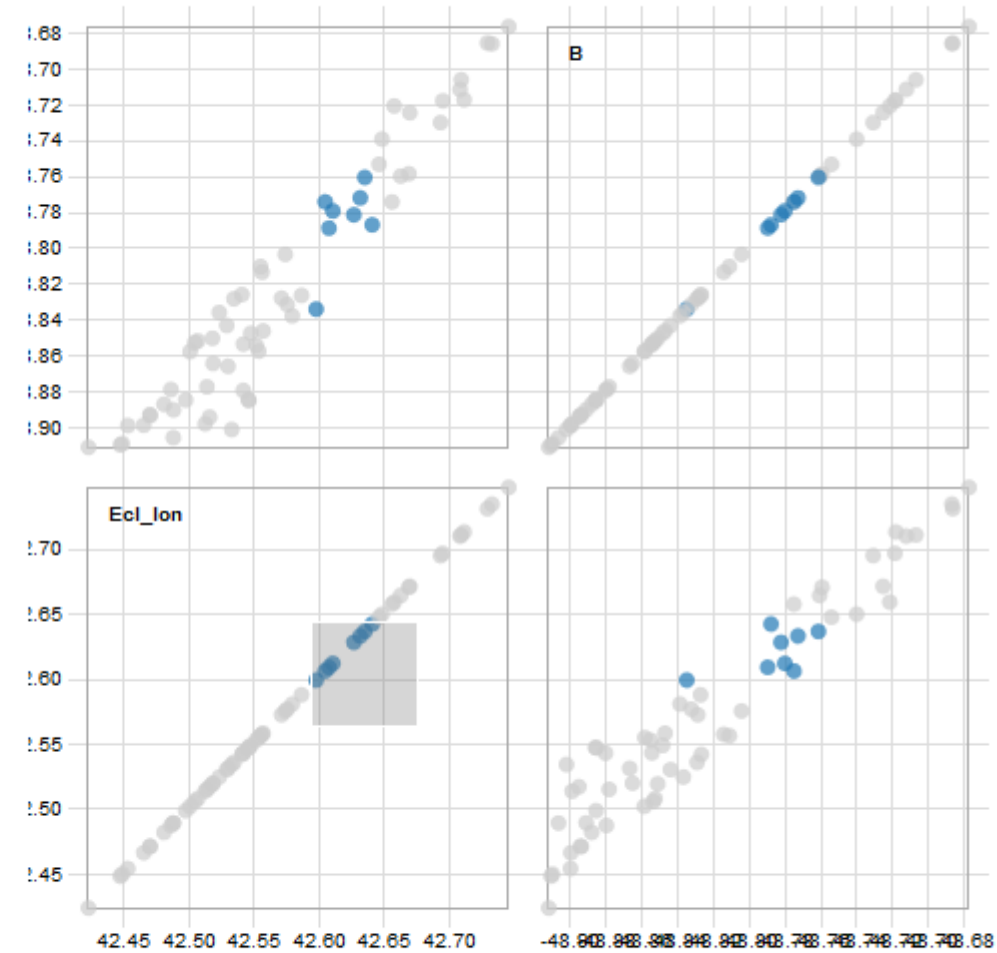
Multiple Data

phot_g_mean_r
 l
b
 ecl_lon
 ecl_lat

Plot

Remove

Data-Plots



Data	
Datasetname:	Gaia Source
Rows:	64
Columns:	37

Options

Plottype:

☐ Scattermatrix
 ☒ Correlogram
 ☐ Histogram
 ☐ PCA

Data Value

solution_id

#Bin

☐

20

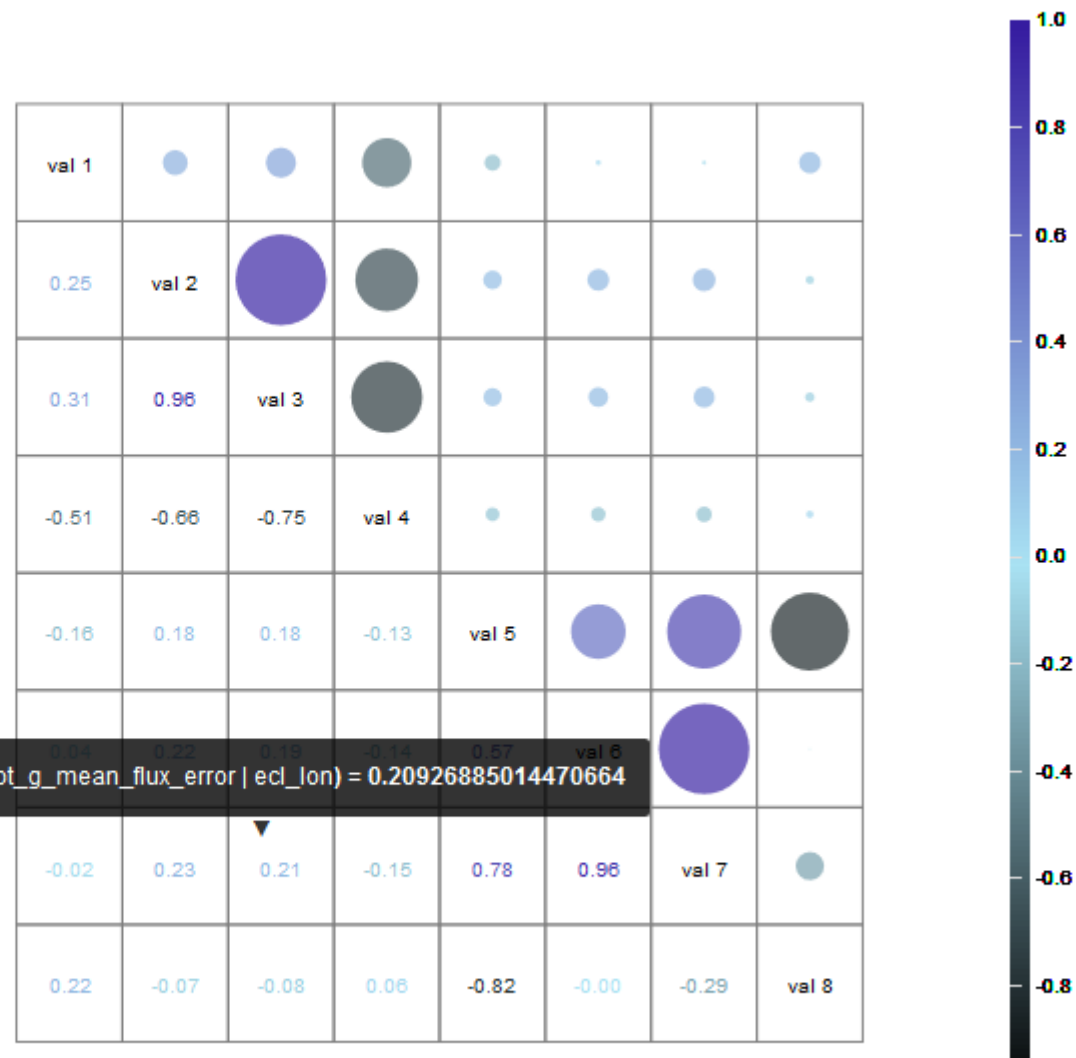
Multiple Data

scan_direction_
 scan_direction_
 phot_g_n_obs
 phot_g_mean
 phot_g_mean

Plot

Remove

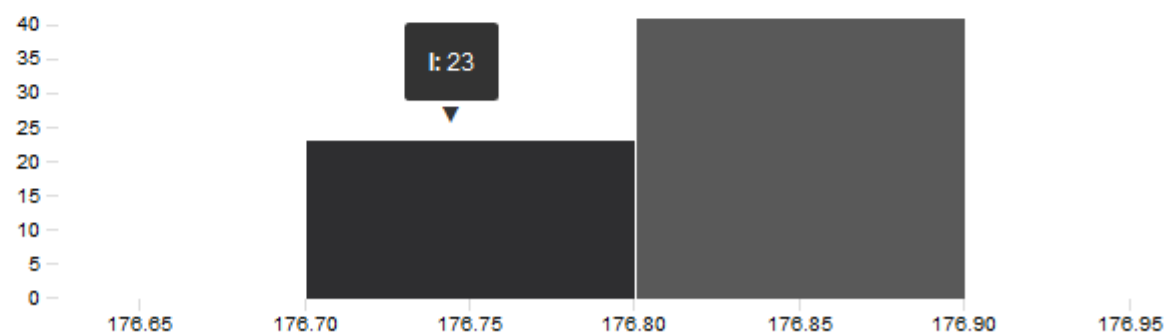
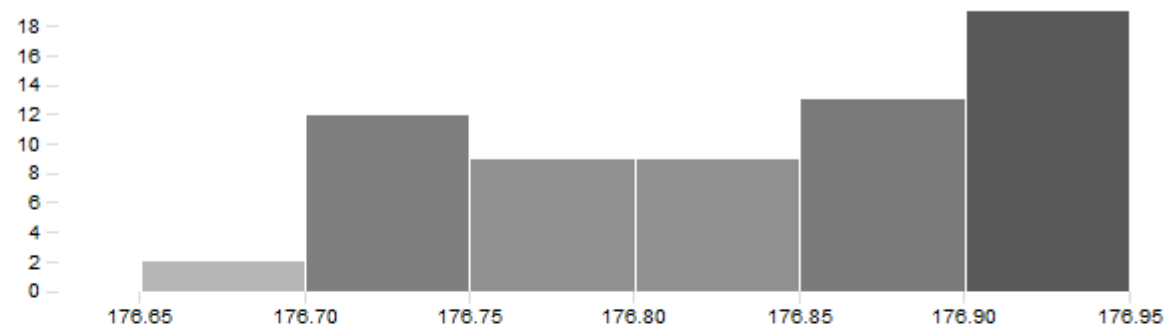
Data-Plots



Data	
Datasetname:	Gaia Source
Rows:	64
Columns:	37

Options	
Plottype:	<input type="radio"/> Scattermatrix <input type="radio"/> Correlogram <input checked="" type="radio"/> Histogram <input type="radio"/> PCA
Data Value	1
#Bin <input checked="" type="checkbox"/>	2
Multiple Data	astrometric_n_e astrometric_n_b astrometric_exc astrometric_exc astrometric_rele astrometric_wel
Plot	
Remove	

Data-Plots



CHALLENGES AND PROBLEMS

- DATASET
- FILTER
- PLOTS
- JAVASCRIPT / D3

THANK YOU FOR YOUR ATTENTION