

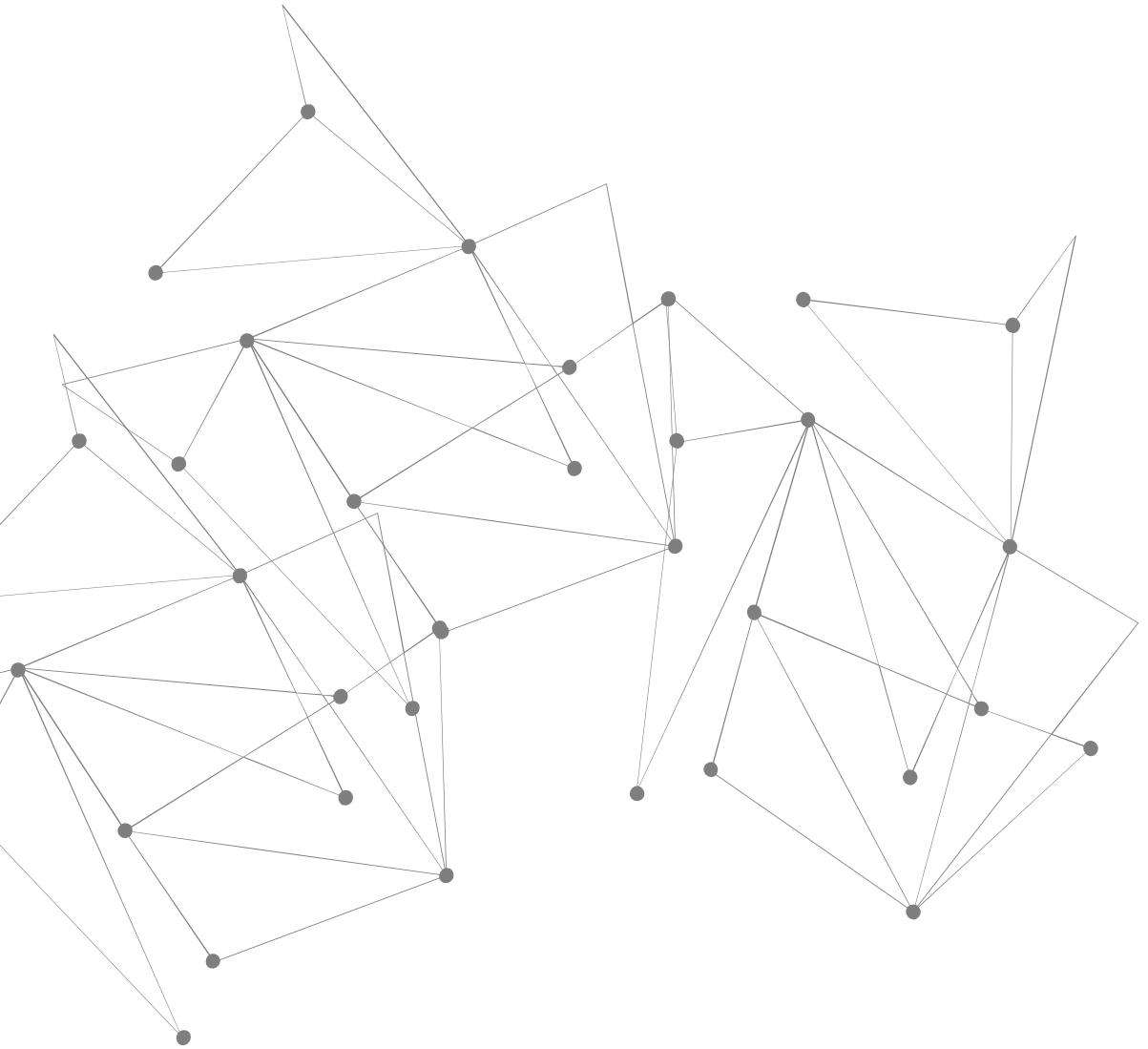
Data Science

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Welcome



- **Data Science Portfolio**
- **Dashboard Examples**
- **ML/DL Application**
- **Data Visualization**



Data Science Portfolio

Languages	Collaboration	AI/ML/DL	Platforms	Query/DB	Frameworks	Visualization
 python™  R  SciPy  NumPy  pandas	 jupyter  R Studio colab  GitHub	 Keras  TensorFlow  scikit-learn  PyTorch  WEKA The University of Waikato  H ₂ O.ai  Amazon SageMaker	 SAS  orange DATA MINING  ANACONDA®	 SQL  Microsoft  HIVE  SQLite  mongoDB  PostgreSQL	 Spark  hadoop MapReduce  aws	 ggplot2  +ableau  Google Data Studio  matplotlib  plotly  seaborn  Microsoft Power BI

Dashboards | 1/2

Annual insurance company summary analysis



Monthly operation performance assessment

Revised
13-Dec-20

Executive Operational Dashboard

Reporting Month | June 2020

#	Business Line	Membership	Star Rating	Current Risk Score	MLR %
1	CNC	3500	3.08	0.88	5
2	UHC MA	5000	2.91	1.03	10
3	Humana MA	7500	2.96	1.03	5
4	NGACO	10000	N/D	1.22	8
5	Commercial	2000	N/D	N/D	9

Physician Network Services						
#	Measure	Business Line	Target	Actual	Delta	
1	Net Promoter Score	THPG PCP	150	179	+29.0	
		CAP PCP	200	200	0.0	
2		EPN	250	220	-30.0	
		CAP PCP	500	550	+50.0	
3	POP Net	THPG PCP	250	236	-14.0	
		UTSW PCP	100	100	0.0	

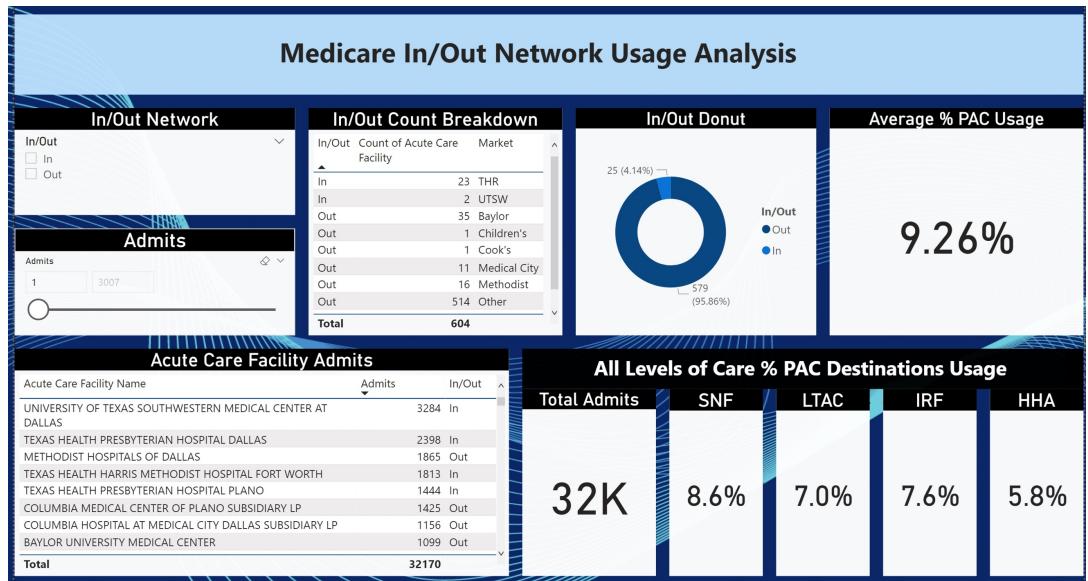
Patient Experience					
#	Measure	Business Line	Target	Actual	Delta
1	Provider Communication	All CIN	80%	94.7%	+14.7%
		UHC MA	80%	79.0%	-1.0%
2	Provider Rating	All CIN	80%	81.0%	+1.0%
		Humana MA	80%	84.0%	+4.0%
3	PX Star Rating	Humana MA	80%	84.0%	+4.0%
		CAP	100%	75.0%	-25.0%

Primary Care Quality						
#	Measure	Business Line	Target	Actual	Delta	
1	STAR Non-Medication Measures	UHC MA	4.1	4.2	+0.1	
		Humana MA	4.5	4	-0.5	
2		CNC-HMO	4.8	4.5	-0.3	
		CNC-PRO	4.5	4.2	-0.3	
3	STAR Medication Measures	UHC MA	4.2	4	-0.2	
		Humana MA	4.5	4.7	+0.2	
4		CNC-HMO	4.8	4.2	-0.6	
		CNC-PRO	4.8	3.4	-1.4	
5	Compliance Composite Score Commercial Only	Commercial	85%	57.4%	-28%	
		UHC MA	85%	69.0%	-16%	
6		Humana MA	85%	85.0%	0%	
		CNC-HMO	85%	87.0%	2%	
7	Annual PCP Visit Rate	CNC-PRO	85%	86.0%	1%	
		Total	85%	85.0%	0%	

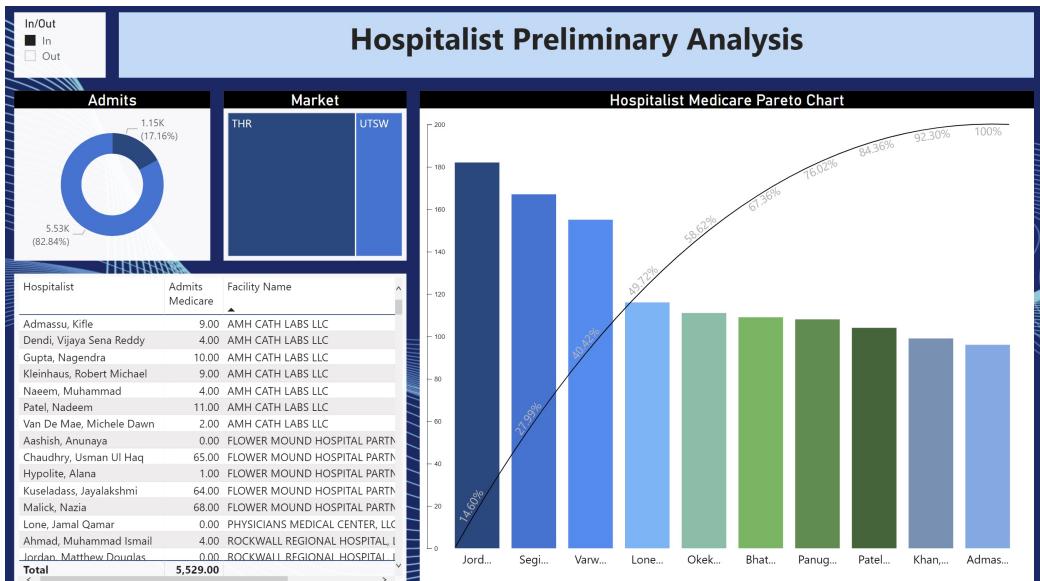
Referral Management					
#	Measure	Groups	Target	Actual	Delta
1	Network Efficiency By Place of Service	Professional	60%	54.2%	-5.8%
		Facility	48%	45.4%	-2.6%
2	INN Referral Rates	Total	52%	49.4%	-2.6%
		CAP	70%	65.5%	-6.5%
3	Total Referral Volume	THPG	75%	77.0%	+2.0%
		Total Volume CAP	11500	7712	-3788.0
4	Total Referral Volume	Total Volume THPG	60000	54565	-5435.0
		Total Volume	11500	7712	-3788.0

Dashboards | 2/2

Post-Acute Care Network Usage Analysis



Network Hospitalists Pareto Chart



ML/DL Application | 1/2

Communication

[Spam Classifier](#)

[Yelp Reviews](#)

[YouTube Comments](#)

[Reviews Satisfaction](#)

Finance

[Avocado Prices](#)

[Car Purchasing](#)

[Sales Prediction](#)

[Ice Cream Revenue](#)

[Stocks Prediction](#)

Marketing

[Sales Platform](#)

[Market Segmentation](#)

Community

[Bikes Rental Usage](#)

[Crime Prediction](#)

[Fashion Classification](#)

[House Pricing](#)

ML/DL Application | 2/2

Creative

[Movie Recommender](#)

[Deep Dream Images](#)

[Detect Smiling Faces](#)

[GANs Images](#)

Healthcare

[Brain Tumor](#)

[Hearth Disease](#)

[Chest Disease](#)

[Diabetes Classification](#)

[Pneumonia Classification](#)

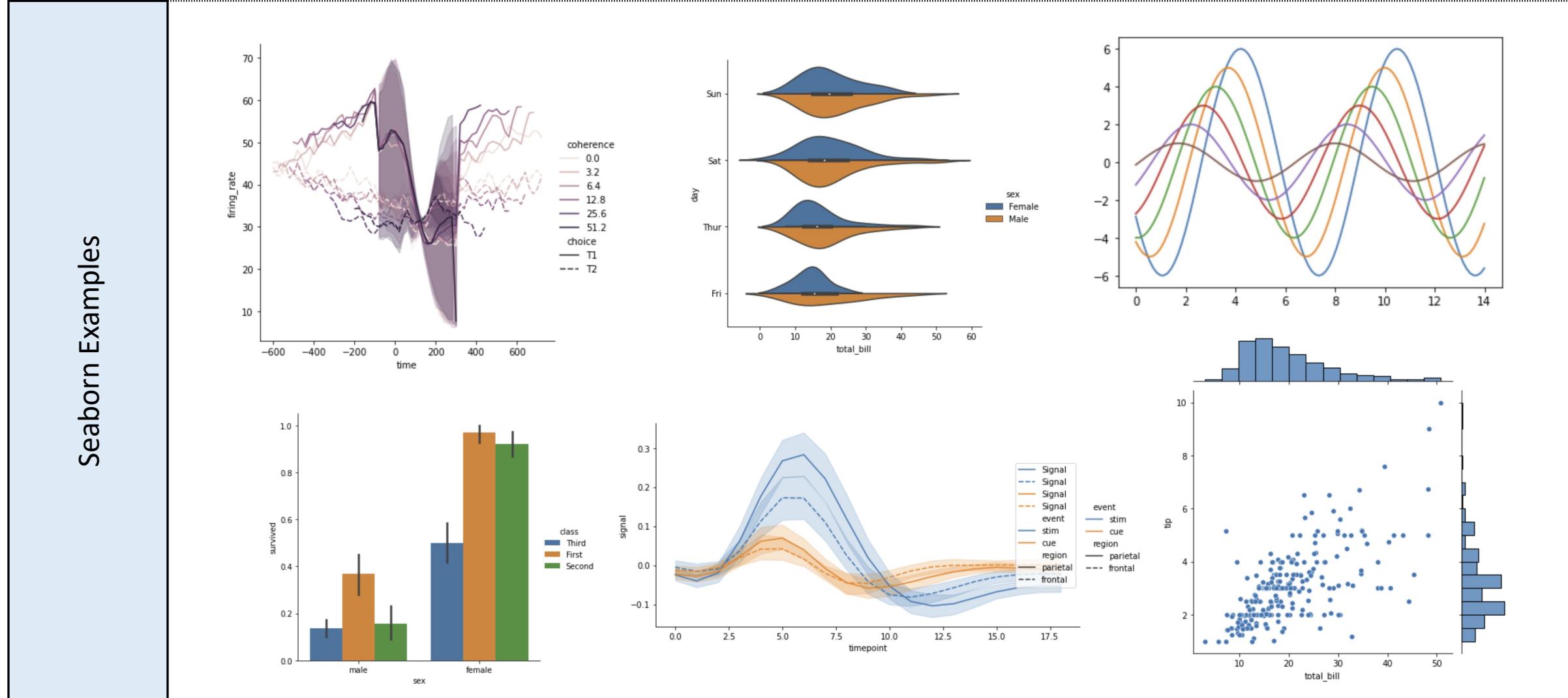
Human Resources

[Employees Retention](#)

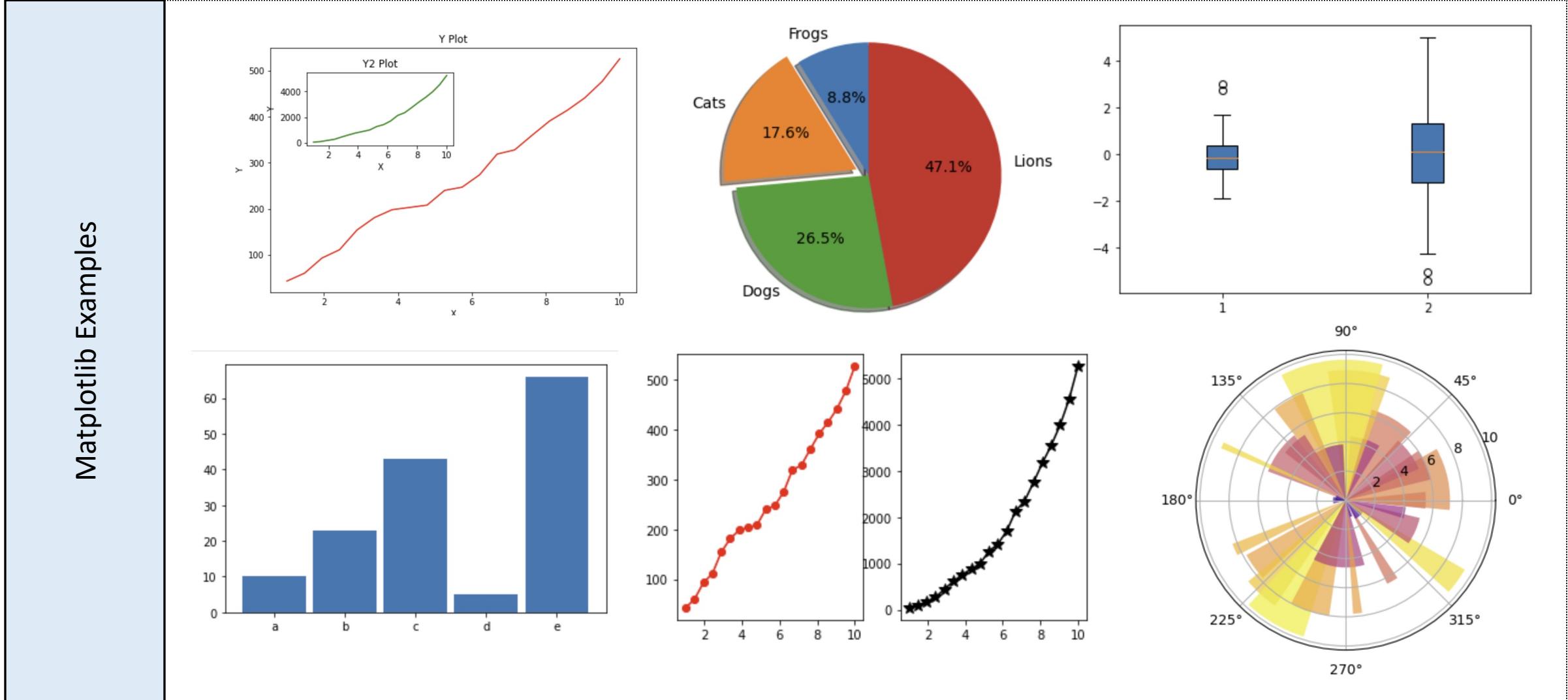
Transportation

[Traffic Signs](#)

Visualization | 1/3

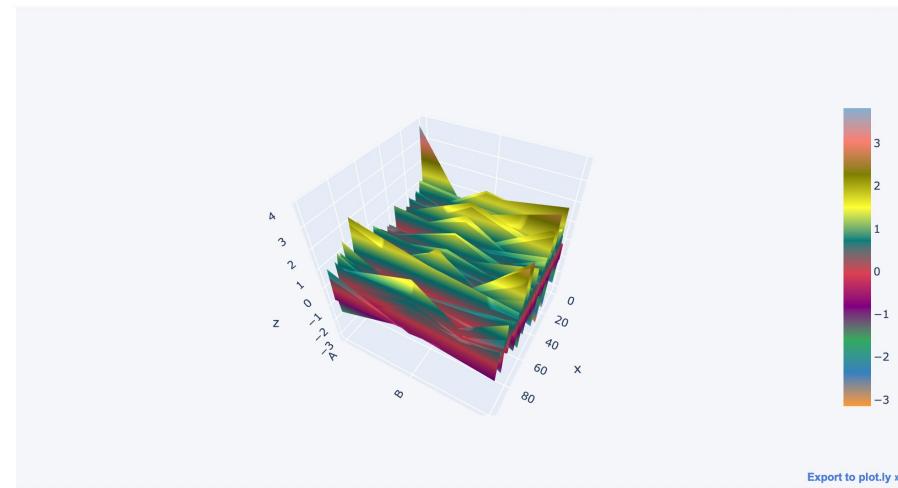
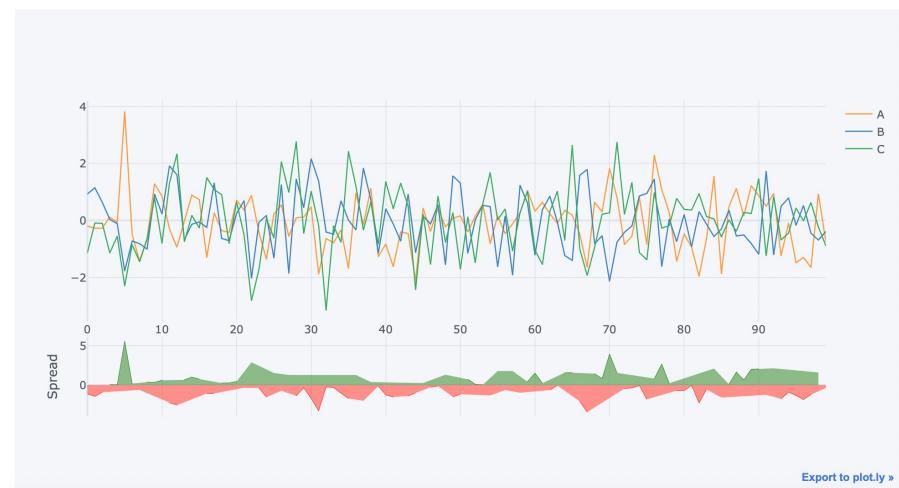
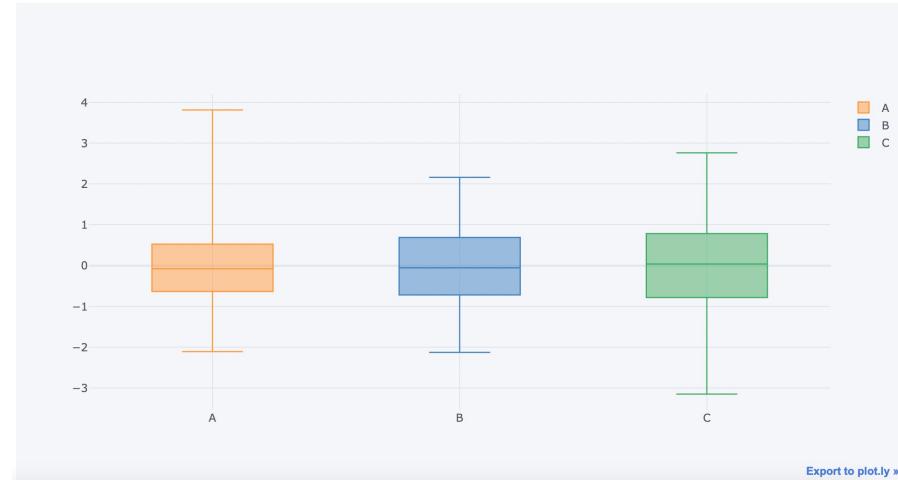
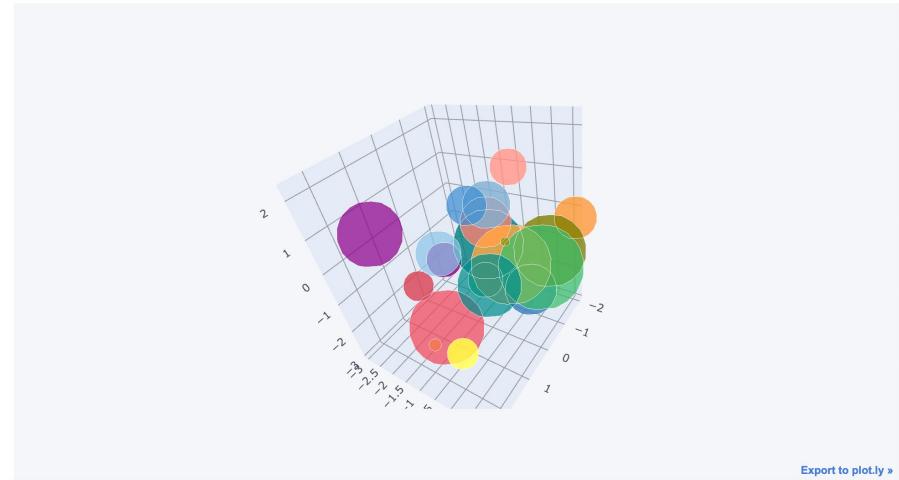


Visualization | 2/3



Visualization | 3/3

Plotly Examples





Thank you & Questions