Uygulama -1

Kullanılan Veri Seti
(Car Dataset)

model	year	price	transmission	mileage	fuelType	tax	mpg	engineSize
A1	2017	12500	Manual	15735	Petrol	150	55.4	1.4
A6	2016	16500	Automatic	36203	Diesel	20	64.2	2.0
A1	2016	11000	Manual	29946	Petrol	30	55.4	1.4
A4	2017	16800	Automatic	25952	Diesel	145	67.3	2.0
A3	2019	17300	Manual	1998	Petrol	145	49.6	1.0

https://www.kaggle.com/niteshhalai/100-000-uk-used-car-data-set/data

Kullanılan Python Kütüphaneleri

Data Encoding

- Label Encoding or Ordinal Encoding
- **One hot Encoding**
- Dummy Encoding
- Effect Encoding
- Binary Encoding
- BaseN Encoding
- Hash Encoding
- Target Encoding
- ....

One Hot Encoding

Ordinal Encoding

workclass
State-gov
Self-emp-not-inc
Private
Private
Private

workclass
0
1
2
2
2

OneHot Encoding

workclass
State-gov
Self-emp-not-inc
Private
Private
Private

State-gov	Self-emp-not-inc	Private
1	0	0
0	1	0
0	0	1
0	0	1
0	0	1

Data Encoding - Spark

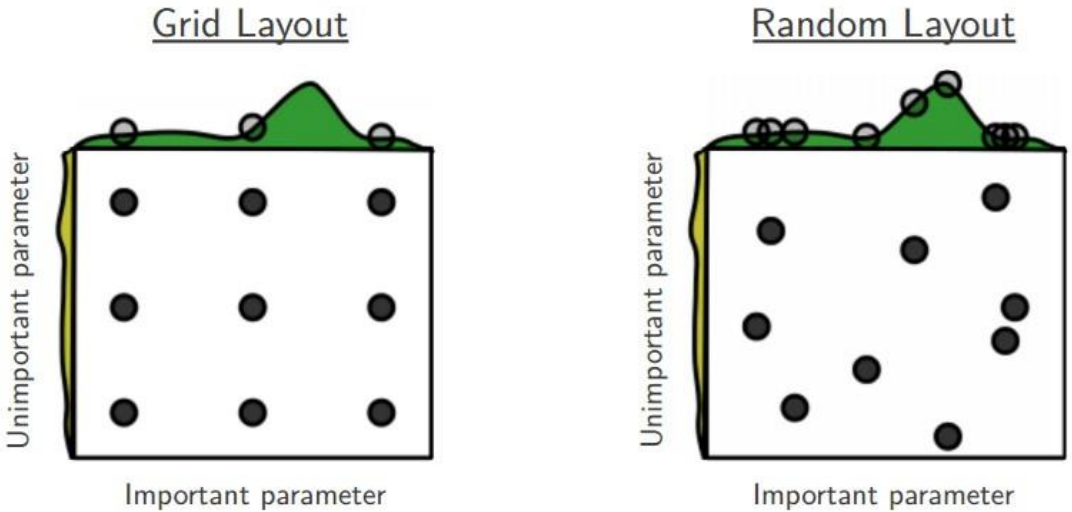
- String Indexer
- One Hot Encoder
- Vector Assembler

Hiperparametre Optimizasyonu

- Hiperperametre optimizasyonu nedir ?
- Bu amaçla kullanılabilecek tekniklerden bazıları:
  - **Grid Search**
  - Random Search
  - Bayesian optimization
  - Gradient-based optimization
  - Evolutionary optimization
  - Population-based optimization
  - Early stopping-based optimization
  - ...

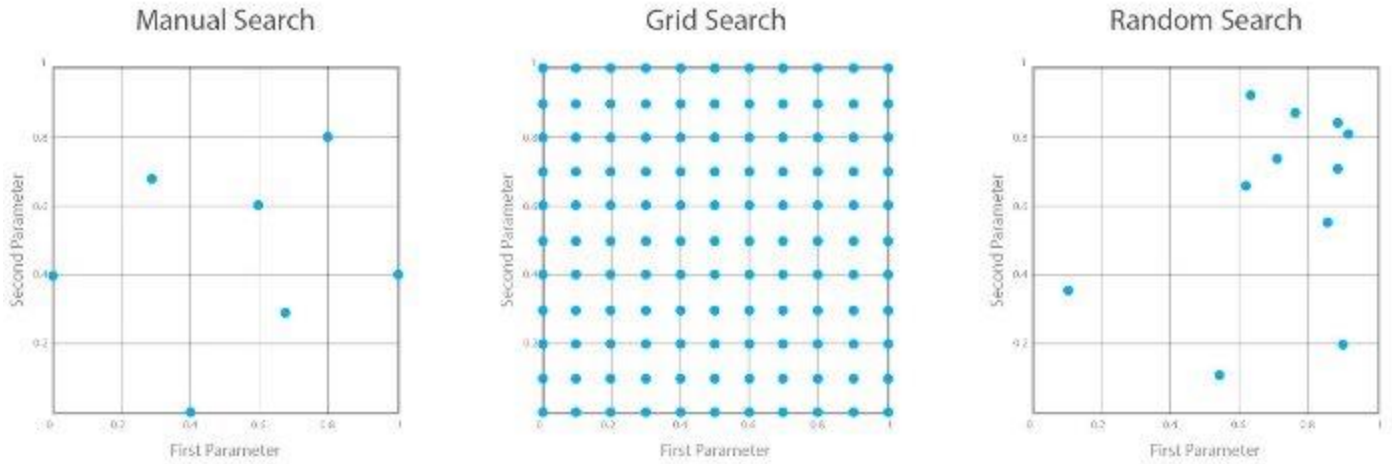
https://unsplash.com/@willfrancis?utm_source=medium&utm_medium=referral

Hiper parametre Optimizasyonu
(Grid Search)



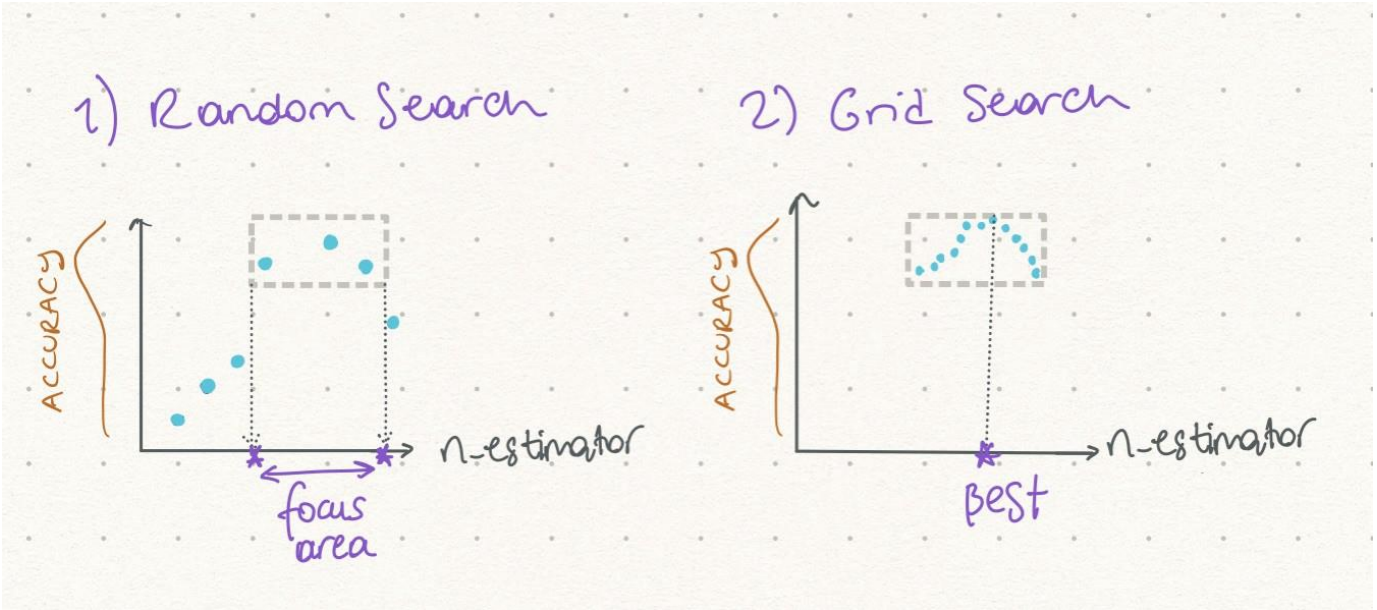
https://kharshit.github.io/blog/2018/08/03/methods-of-hyperparameter-optimization

Hiper parametre Optimizasyonu
(Grid Search)



https://towardsdatascience.com/hyperparameter-tuning-with-grid-search-and-random-search-6e1b5e175144

Hiper parametre Optimizasyonu
(Grid Search)



https://towardsdatascience.com/hyperparameter-tuning-with-grid-search-and-random-search-6e1b5e175144