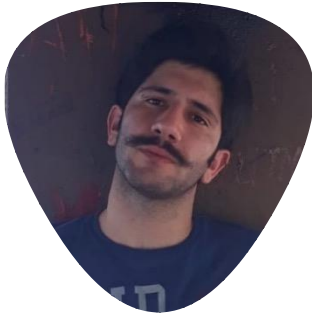


# Solar Power Forecasting

WHO AM I ?

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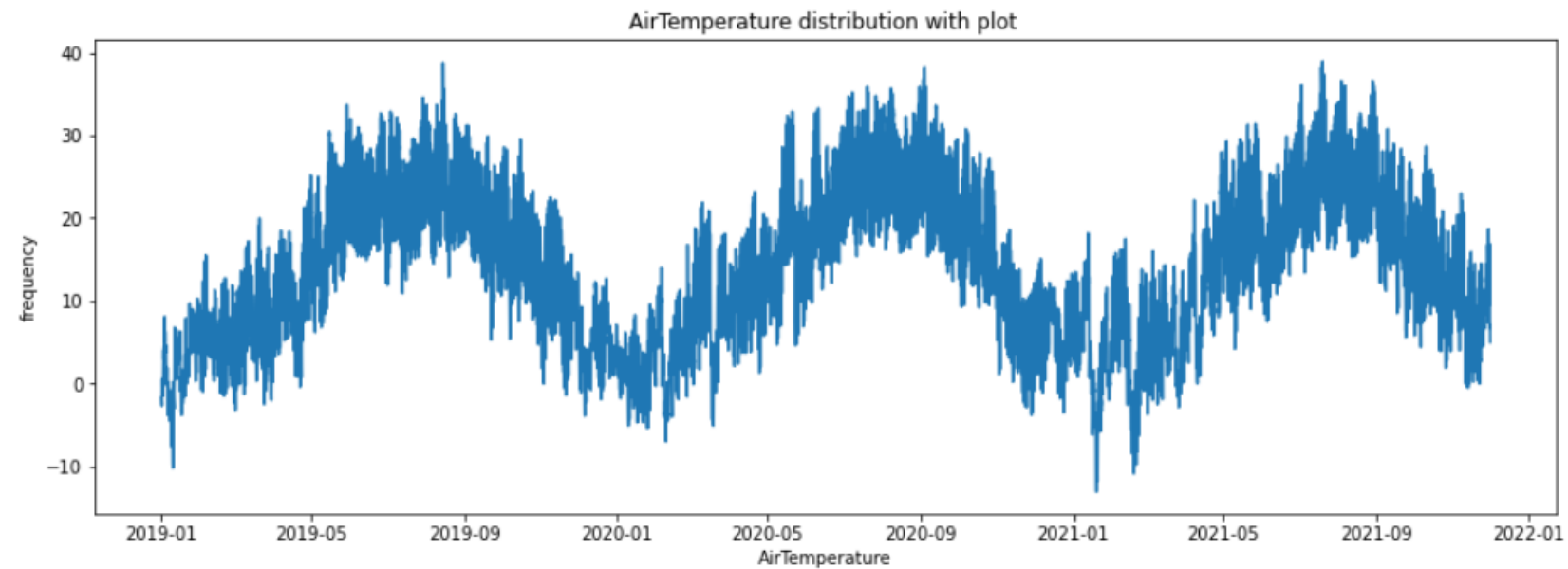
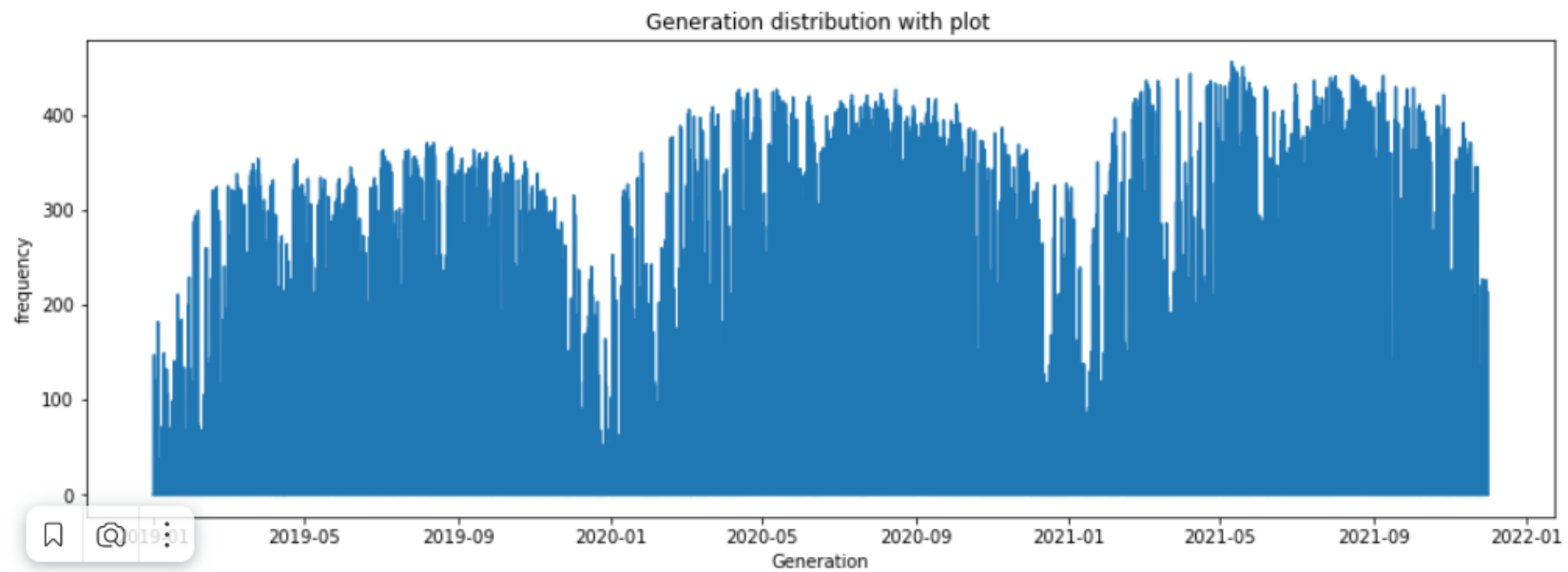
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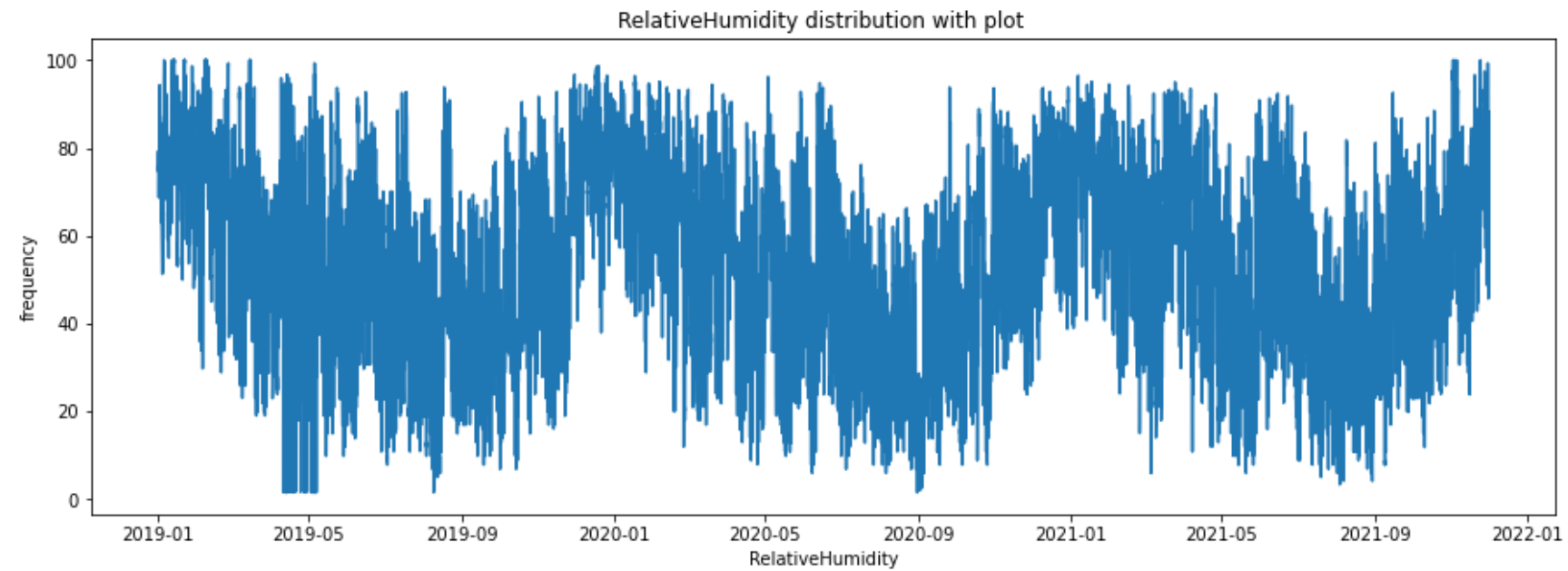
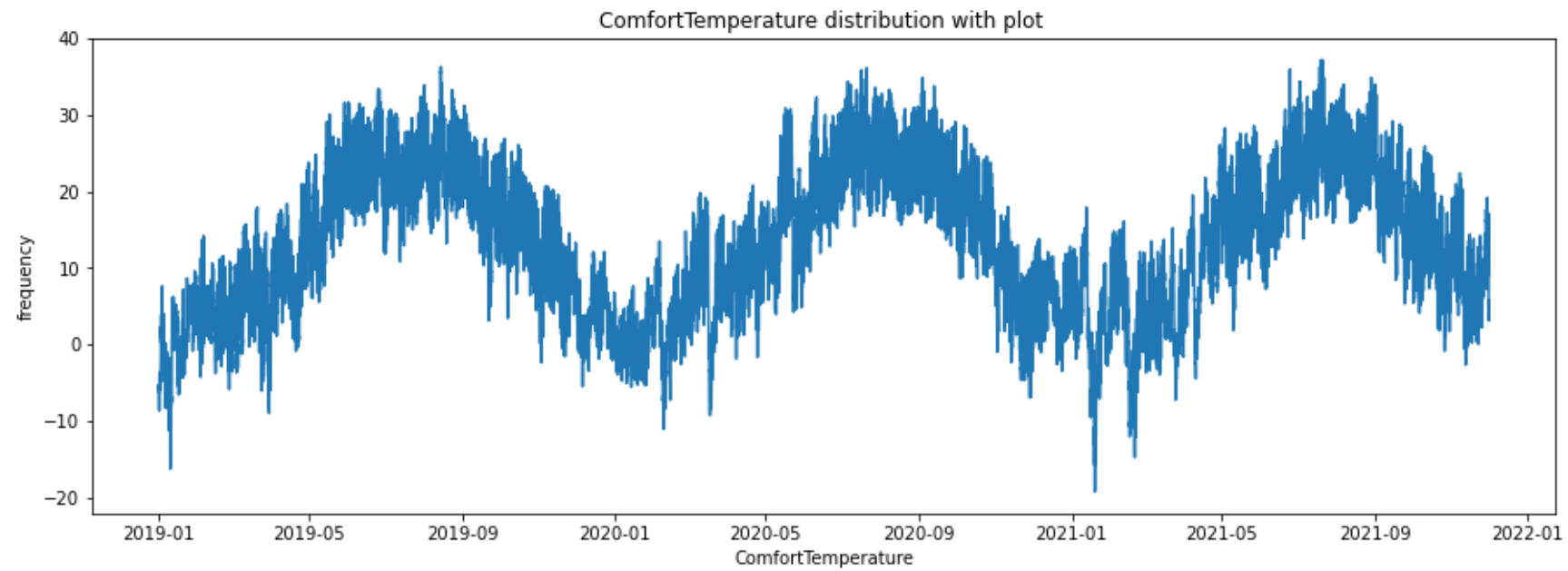
DEÜ Computer Engineering Student

# DATA EXPLORATION

## DATA EXPLORATION

[illegible]





<b>Code ww</b>	
<b>80</b>	Rain shower(s), slight
<b>81</b>	Rain shower(s), moderate or heavy
<b>82</b>	Rain shower(s), violent
<b>83</b>	Shower(s) of rain and snow mixed, slight
<b>84</b>	Shower(s) of rain and snow mixed, moderate or heavy
<b>85</b>	Snow shower(s), slight
<b>86</b>	Snow shower(s), moderate or heavy

# FEATURE ENGINEERING



## NEW FEATURES

---

*Partday*

*Season*

*Hour*

*Dayofweek*

*Quarter*

*Month*

*Year*

*Dayofyear*

*Dayofmonth*

*Weekofyear*

## MODELS

MODEL	RMSE
XGBoost	21
LSTM	40

```
model = XGBRegressor(  
    random_state=42,  
    tree_method="gpu_hist",  
    gpu_id=0,  
    predictor="gpu_predictor",  
    **optuna_params  
)  
model.fit(  
    datasets['x_train'],  
    datasets['y_train'],  
    early_stopping_rounds=optuna_params['early_stopping_rounds'],  
    eval_set=[(datasets['x_val'], datasets['y_val'])],  
    verbose=1000,  
)
```

```
model = Sequential()  
model.add(LSTM(64,return_sequences=True, input_shape=(lstm.shape[1], lstm.shape[-1])))  
model.add(Dropout(0.5))  
model.add(LSTM(20,return_sequences=False))  
model.add(Dropout(0.5))  
model.add(Dense(1))  
model.compile(loss='mse', optimizer='rmsprop')
```



# QUESTIONS