ENGR-599 Deep Learning Application: AI-First Engineering

Project Define

Forecasting Natural Gas Demand/Supply

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Problem

- Importing energy resources(LNG)
- Stores LNG to the LNG tank
- Tank operation costs in charges
- Increase the need of gas demand

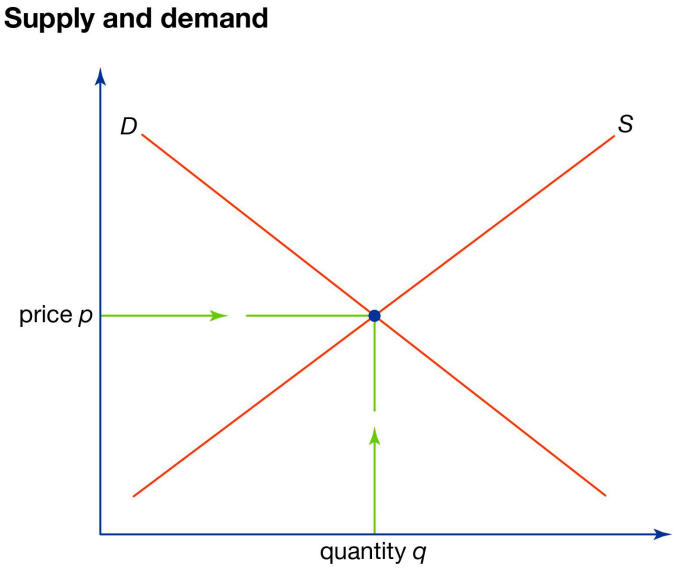
Dataset

- Low season temperature

  => High heating demand

- High price(crude oil and coal)

  => High alternative energy demand



Dataset

- NG Supply Dataset: 9 regions
- Regional Climate Dataset: Average monthly temperature
- Crude Oil Price Dataset: 4 types
- Bituminous Coal Price Dataset: Big-4 import countries

Algorithms / Software

- Basic: Python, Google Colab
- Data preprocessing: Pandas
- Visualization: Matplotlib
- Deep Learning: Tensorflow, Keras

Timeline

Tasks	W1		W2		W3		W4		W5	
Find more dataset, algorithms and works										
Perform data preprocessing										
Design network model										
Forecast and complete project										

Thank you