Independent Study In Computer Science

Student: AJ Serck

Supervisor: Guanpeng Li

Description: This project will discuss the relationship between Natural Gas Price Versus Heating Degree Day(HDD) by creating an accurate model using computer science concepts. This experience is relevant to building models that are utilized to predict real world metrics, such as oil future prices. The student will data gathered online to build a model to predict the two metrics, and perform a metanalysis on how accurate the model is.

Criteria For Project Success:

- Real world data is gathered and utilized to build a sufficient model.
- Relevant visualizations are made using programmatic methods.
- A report document complete with background information, code snippets, and results is compiled.
- A python program is completed to accurately model the data.
- A open-source project is available on git for anyone to freely download.

Progress/Milestones:

10/22: Research is done and compiled into document that explains what the different terms mean and what technology is used.

11/5: Data for project is gathered and compiled into easily parsed format, the git repository is created with a Readme and skeleton structure, being able to produce test visualizations

11/19: The bulk of the program is written and functional, having a working model predict the data.

12/3: The programming portion of the project is completed and the report is started.

12/10: Final result report is completed and submitted.

At each interval, the student will provide an update to the supervisor to ensure progress is going forward reasonably.