

EE / CprE / SE 491 – sdmay19-07

Real Estate Portfolio Optimization

Week 3 Report

Wednesday, September 19 – Wednesday, September 26

Client: Principal

Faculty Advisor: Chinmay Hegde

Team Members:

Blake Roberts - Project Manager / Backend
Colton Goode - Meeting Scribe / Backend
Kevin Johnson - Test Engineer / Frontend
Leelabari Fulbel - Meeting Facilitator / Frontend
Nickolas Moeller - Report Manager / Backend

Weekly Summary

We continued to research Markowitz. We met with Principal Financial and discussed the theory and how to apply Markowitz with the data that was provided.

Past Week Accomplishments

- Meeting with client - Everyone
- Research into portfolio optimization and modern portfolio theory (MPT) - Everyone
- Made data migration and api python scripts for test data - Blake
- Research useful libraries in Python useful for data analytics - Blake

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Blake Roberts	Made data migration and api python scripts for test data	6	12
Colton Goode	Researched more on portfolio optimization and Markowitz and Black-Litterman analysis. Started with black-litterman in python. Tested api python scripts.	6	11
Kevin Johnson	Worked on first implementation of Markowitz algorithm with test data (MVO	6	10
Leelabari Fulbel	Looked at implementations of Black-Litterman Model	6	8
Nickolas Moeller	Read more Black-Litterman and started learning Python	6	10

Pending Issues

- Lack of understanding of portfolio optimization - Everyone
- Currently just a high level understanding on the project requirements
- Lack of implementation knowledge on MPT optimization
- Lack of knowledge on the data set

Plans for Coming Week

- Continue research into MPT (Specifically Markowitz and Black-Litterman) - Everyone
- Research into Real Estate Investment: Terms and concepts, strategies, players involved, environment, etc.
- Get a feel for the requirements, then start brainstorming components needed for the backend functionality and frontend UI

9/24/18 - 9/30/18												
	Team Members						Principal Team					
Task	Blake	Cole	Kevin	Lee	Christine	Nick	Ben	Jonathan		Action	Notes	
Markowitz Research	S	S	R	S	S	S				Review literature. Implement first-pass algorithm using test dataset.		
Black-Litterman Research	S	R				S				Review literature. Implement first-pass algorithm using test dataset.		
Data Dictionary	A						R	R		Include Data Dictionary in Box	The bottom of the Data file has a data dictionary. Unless there is more descriptive information readily available, this can be considered completed.	
Costart Report Summary	A						R	R		Find out if a Costar report can be disclosed. Make available a summary of the report.		
Translate Data	R									Translate Excel Data to CSV and push the document to github.		
Schedule Presentation	S	S	S	R	S	S	A			Schedule a presentation to be given on Principal campus in the 4th week of October		