sdmay19-06: Quantitative Research Modeling Library
Week 1 Report
September 1 - September 14

Client: Joseph Byrum
Advisor: Srikanta Tirthapura

Team Members
Josiah Anderson — *Meeting Facilitator*
Doh Yun Kim — *Scribe*
Gabriel Klein — *Report Manager*
Drake Mossman — *Communication Manager*
Nathan Schaffer — *Overseer*
Jacob Richards — *Quality Assurance Manager*

Summary of Progress this Report
The first couple weeks of working on our project have been busy with planning and prep work despite sparse technical progress. We focused heavily on understanding the scope through communications with Principal and an interview with one of their data scientists. We also set up many essential project management components and began to research important technologies likely to be useful for the project.

Kickoff Meeting with Principal - Group
- Met with Principal in Des Moines to kickoff the project
- Discussed background and initial tasks

Data Scientist Interview - Group
- Interviewed Josh Zimmerman, a data scientist at Principal
- Refined understanding of the project's usefulness and our scope of work
- Learned much about the relevant technologies and current workflow of their data scientists
 -- One person is swamped with providing the whole team with data by getting data from various sources and
   formatting it consistently
 -- Large calculations on rolling frames are manually set up repetitively making automation useful
 -- Varying language preferences mostly based on familiarity
 -- [Interview Notes](#)

Technologies Research - Various members
- Learning R (Doh Yun and Gabriel)
- Learning Python (Josiah)

Pending Issues
We are currently waiting on Principal to deliver some critical artifacts for us to continue the project. These include contact information for data scientists to interview and samples of the code we are to automate. Until we receive these, we are limited to researching potential technologies to help guide decisions later in the project.

Plans for Upcoming Reporting Period

Josiah Anderson
- Continue researching Python to be able to read sample scripts
- Conduct more interviews to continue to refine scope

Doh Yun Kim
- Find out if Python and R can be easily integrated
- Research more Python in general
- Find out how models in R work
- Plan rough ideas/prototypes we can present to Principal based off of research

Gabriel Klein
- Continue learning R and possibly brush up on Python
- Research R packages mentioned by our interviewee and potential Python alternatives
- Interview more data scientists when possible

Drake Mossman
- Experiment with R
- Examine example scripts from Principal once available
- Look into Python/R cross-communication possibilities
- Get familiar with GitLab task management and begin documenting work there

Jacob Richards
- Research Python and R
- Look into interaction between the two

Nathan Schaffer:
- Research R and Python
- Become familiar with Gitlab
- Research Gitlab's project management tools and present ideas for the team

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Josiah Anderson	Contributed to kickoff meeting/interview, researching mentioned terms/technologies, and began learning basic Python	7	7
Doh Yun Kim	Contributed to kickoff meeting/interview, organized interview notes, and began researching R	6.5	6.5
Gabriel Klein	Contributed to kickoff meeting/interview and began learning R	7	7
Drake Mossman	Contributed to kickoff meeting/interview	6	6

Nathan Schaffer	Contributed to kickoff meeting/interview	4	4
Jacob Richards	Contributed to kickoff meeting/interview	4	4

Gitlab Activity Summary
Nothing to report.