Technology Plan

Project Name or Identification

CDI - Viz Dashboard

Prepared by:

Montana Data Consultants

Date:

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Introduction

Montana Data Consultants will utilize several technologies and software to build a system for Morton Analytics. MDC will use Python and R to clean and analyze the data. From there, Tableau and Python will be used to create a visualization tool for Morton Analytics to utilize in their bidding.

List of Specific Technologies

- Python
- R
- Tableau

Team Member Skills

Ashley Hardin - Ashley is graduating in May with a B.S. in Management Information Systems with a minor in Mathematics and a certificate in Big Data Analytics. Ashley has spent a whole year learning and practicing using the software R to analyze data, and create predictions based on her analysis. She has also spent some time working within the visualization tool, tableau to effectively resemble the data. Ashley also has experience working with enterprise level SQL querying through an internship with FAST Enterprises, and can use SQL if the project needs it.

Jackson Nakae - Jackson has an undergraduate degree in Mathematics from Montana State University, and is currently pursuing an M.S. in Data Science at the University of Montana. In his studies he has completed multiple advanced data science, statistics, and computer science courses, These include Advanced Data Analytics, Advanced Data Analytics Theory, Numerical Methods, and Simulation Modeling. The summer of 2023 he received an ORISE fellowship to work for the US forest service, helping to develop a stream permanence model for western OR called FlowPER. Jackson has multiple years of experience using both R and Python software for data analytics and visualization.

Rebecca Bryan - Rebecca has a B.A. in Mathematics from the University of Montana and is currently pursuing an M.S. in Data Science at the same school. Throughout her education, Rebecca completed multiple courses, including Advanced Data Analytics and Theory, Numerical Analysis and Methods, and is currently completing Simulation Modeling. She has gained extensive experience in Python and has learned various methods for data cleaning, manipulation, analysis, and visualization. She also has some experience in R and is able to learn new software quickly and efficiently. She plans to learn Tableau throughout this project.

Learning Plan

The Montana Data Analytics team already has strong skills in order to complete this project. However if there is a skill needed that a member of the team does not already have one of the following will be done-

- Reach out to a mentor
- Complete an online course in the skill
- Seek out free online tutorials

Rebecca Bryan plans to learn Tableau for this project. She will utilize online tutorials and if available find a short online course, through Coursera or other websites, walking through the basics. She will complete a course or multiple tutorials and understand the basics of Tableau by the end of March.

Technology Mentor

Jason Triche will be a mentor that can help with anything R or Tableau related. He teaches data analytics courses here at the University and has a great amount of experience in these two softwares.

Javier Perez-Alvaro is another mentor that can be used for anything related to Python. He teaches data science courses at the University.

Bryan Hammer is a mentor that can be used for assistance with Python, Power BI, and coding syntax. Bryan is a faculty member at the University and teaches courses in app development and graduate analytics courses.

Jackson Joyner, a Data Scientist with Morton Analytics, is the main point of contact and also has experience in the various software that will be using, including R, Tableau, and Python. He has offered to answer questions and help out if needed.