**Title:** **Projecting the Migration of Unaccompanied Minors from Latin America**

**Executive Summary**

*Your executive summary should be pretty brief, under 3 paragraphs and should provide a concise summary of the purpose and contents of the rest of the document. Explain to the reader what they will get from this document.*

To complete our Data Science Program, we are required to create a project presentation analyzing data using what we’ve learned start to finish. We will have six weeks to choose a project and complete it. Princess, Christina, and I formed a team called “Unaccompanied Adults Supporting Unaccompanied Minors”.

This document will explain the purpose and the scope of the project.

**Business Objectives**

*Business objectives should offer the details for why the project is important. Outline the goals of the project int he sense of the value it will bring and set expectations. Keep your objectives measurable to avoid confusion in whether or not they have been met.*

To demonstrate the mastery of our data science skills we have learned through the Data Science Program. We will use R, Python, Excel, Tableau, and other programs to wrangle, analyze, and present our findings related to datasets from the Inter-University Consortium for Political and Social Research titled, “Addressing the Surge in Unaccompanied Migrant Children” and data from the US Border and Customs Department titled, “Southwest Land Border Encounters”.

Our end goal is to visually present one aspect of the story concerning migrant unaccompanied minors and to project possible surges. We will share this story with our peers, instructors, potential employers, and other interested parties.

**Background**

*Provide any relevant background information regarding why this project is being initiated*

This project serves as a culmination of skills learned and practiced through the Data Science Program.

We have chosen this topic as it is of great interest to all of us. This subject is highly politicized and the population very vulnerable. It is of the utmost importance we understand the trends of migration in order to protect these children by being proactive.

**Scope**

*The Scope section should outline what is and is not included as part of this project. Oftentimes we make assumptions of features or functionality that is not necessarily required. This is especially useful in a phased approach or when working on an existing system.*

Christina, Princess, and Suzy will use software we’ve become familiar with in the program. We will use software of the most interest and that is the most appropriate to the task.

In relation to the actual project content, our scope is to be able to project when influxes of unaccompanied minors from Latin America migrate into the United States. This includes ages, timeframes, country of origin, and how they are designated.

**Functional requirements**

*This is where most of the detail should reside. describe all of the required capabilities of the system in detail. It is helpful to articulate features in terms of user capabilities. Keep in mind that the features will be designed and developed off of these descriptions, so if you leave anything up to interpretation, you run the risk of the results not meeting your expectations. You can also assume capabilities that are not mentioned here will not be included in the project, no matter how common or obvious they are. You may want to break our subsections for each major feature to make the document more organized.*

Data Wrangling: We will need to combine datasets and create a sub-set with the relevant data needed. The datasets will need to be narrowed by removing the unusable columns. We will need to make sure it is formatted best for the suited analysis.

Data Analysis: We will familiar ourselves with the topic, datasets, and each column of given information. With this understanding, we will brainstorm questions to ask of this data in order to best tell its story and help narrow our focus to know which functions to use to create models and predictions.

Data Visualization: Once we have been able to properly analyze our datasets, we will need to create visuals using Tableau or other graphing programs to help present our findings in our PowerPoint Presentation.

Presentation: Christina, Princess, and Suzy will schedule a time to present their findings to their instructor, Margaret Martinez via Zoom. We will be dressed in a professional manner and communicate clearly in presenting our evaluation of the data. We will keep our presentation about 20 minutes.

**Personnel requirements**

*In this section you may want to describe the composition of the team, do you need dedicated development? how many people? How about design or QA? Think about what personnel is required to make this project a success, and place your recommendations here.*

Our team (Christina, Princess, and I) will be the developers in this project. We will work to communicate regularly through text, Slack, and Zoom throughout the process in order to succeed. As conflicts, questions, concerns come, we will touch base with each other and work through them with understanding. We all have great strengths and have taken care to work through our challenges.

Once a week we will meet with our instructor to seek guidance on continuing the process.

We may also need to reach out to our other mentors if other guidance is needed.

**Delivery schedule**

*It's often helpful to break a project out into phases or milestones. In this section list out any logical checkpoints where you would like to see the project demonstrated to ensure that expectations are being met. Describe the phase, and the functional requirements required for completion.*

Week 1: We will get to know our team members and find some common times and ways we can communicate. A topic will need to be chosen and researched with appropriate datasets. We will get our GitHub setup.

Week 2: We will get set up in R and Python to study the dataset and ask questions, find possible correlations, look at distributions, and figure out which predictive models to generate and examine graphs.

Week 3: Modeling/Optimization (Combined Stepwise - Forward and Backward Selection) and Machine Learning (Random Forest.)

Week 4: Review and validate findings from the previous week, and draw insights/conclusions. Double check everything. After this week, NO MORE ANALYSIS for the sake of time and completion of the project.

Week 5: Compile findings into a PowerPoint presentation, review presentation with our instructor, and practice our presentation. Work on timing of the presentation and flow along with the style and layout of the presentation.

Week 6: Final edits to the Power Point presentation and review again. We will practice presenting at least a couple times and at least once with their instructor.

**Other requirements**

*This section serves as a catch-all for any details that may not fit in other areas. things like device or browser support, considerations for accessibility or inspiration for style. Offer additional context here to ensure the project meets your vision*

Any programs used will be free or free to user. Considerations might be made for Tableau.

**Assumptions**

*Oftentimes we are reliant on outside sources such as frameworks to be used, or services that our system will depend on. In this section you should provide detail on any assumptions that you have made, such as the system being reliant on the availability of the Google Maps API.*

Programs and platforms used for this project need to be updated, available, and usable. All team members will work together to complete the project.

**Limitations**

*Identify any limitations in terms of time, personnel, technical details, or other things that limit the scope, time, and cost of the project being discussed.*

Unforeseen circumstances during our project timeline could delay the project. If we reach a challenge in our processing, we may also be delayed.

**Risks**

*Every project has inherent risks that may cause delay or even failure of a project. You must identify this risks to show you know what they are, and also identify ways in which you would mitigate those risks.*

Possible risks that may occur could be severe storms causing power outages and damages, or any possible family emergencies.