

## IT/Systems Monitoring: Rubric

Component	Sophisticated	Competent	Novice	Points
<b>Summarize Data</b>				<b>20</b>
Data handling	Comprehensive description of the procedures to handle and import data.	Vague discussion of importing and processing data.	No mention of how data is imported and processed (worst case: "We were not able to import the data.")	10
Variable creation	Discussion on how variables are created and why these variables are important, including any potential improvements.	Explanation of the created variables.	No mention of variable creation.	10
<b>Modeling</b>				<b>35</b>
Data Aggregation	Comprehensive rationale for aggregating variables and observations. Methods should be discussed in detail, but qualitative rationales for groupings should be explained.	Brief discussion of methods used for clustering data.	No discussion of data aggregation.	15
Explanatory/Predictive Modeling	Comprehensive description of modeling strategies, along with a full description of qualitative/quantitative modeling considerations.	Moderately multivariate based analyses without motivation.	Simplistic modeling strategies without motivation.	15
Model Justification	Discussion of viable alternatives and why selected model is superior, including comparison between other models and inclusion of different variables. Thorough discussion of model validation strategy	Highlight strengths and weaknesses of proposed model, but no discussion of alternatives. Moderate validation analysis.	No model justification or discussion of alternative models.	10
<b>Computational Issues</b>				<b>25</b>
Computational Considerations and Demands	Comprehensive discussion of how computational challenges were met and overcome. Discussion of how additional computational resources benefitted the project.	Moderate discussion of how advanced computational resources were used.	No discussion of computational issues.	15
Computational Modeling Choices	Assessment of strengths and weakness of the approaches to modeling and how choices were impacted by computation	Some discussion, but generally obvious (e.g. "we only used a sample of the data for computational reasons")	No connections between computational and modeling choices.	10
<b>Written &amp; Conclusions</b>				<b>20</b>
Impacts	Strong discussion of how your results are important, and to whom.	Over emphasis of obvious results, or misinterpretation of results.	No discussion of the relevance of your results.	10
Written Paper	Logical sequencing with well developed paragraphs. No major grammatical errors.	Confusing paper sequencing and/or a few grammatical errors.	Poor sentence or paragraph structure, and major grammatical mistakes.	10

Due date: December 8th

Requirements: Maximum of 5 written pages (+1 page Appendix). Project descriptions should minimally include sections which address: the motivation for the problem, a discussion of the data, a discussion of methods used, and conclusions/suggestions pertaining to the problem.