	Advanced Applied Machine Learning Research Project Criteria				Points
	26 pts	16 pts	8 pts	0 pts	
INTRO **Research Project Introduction and Goals**	• Student clearly defines the research topic and project goals. Describes the rough **research** and/or **development** approach, **hypotheses** • What ML problem solved? What method analysis applied?	• Problem and solution are clear but the reasoning is not • Approach and/or steps are described roughly with insufficient detail	• Jumps to research, and or developing some code and analysis without preparing the user/customer/ audience	• The machine learning topic, or method, or input data is irrelevant	
HYPOTHESES & METHOD **Machine Learning Problem and Method Description**	• Algorithm or method description, **math** behind it (if applicable) and code are sound • Sufficient demonstration that student knows his/her applied ML method	• No block diagram • Description is sound, but not supported by prototype runs, or **research**, etc. • The solution approach is not at all explained clearly	• No block diagram • Solution might work but not sure • Improper data • Performance criteria not enough	• Solution code has errors, does not run • No performance measures, or analysis • Approach is irrelevant to the project objectives, which is the applied ML	
RESEARCH **Related Work**		• Correct approach or convincing novel approach to ML problem • Theoretical research has merit and complete	• Mediocre related work • Not enough explanation for the existing methods • Is it worth it?	• No related work researched	
APPLICATION **Method and Solution**		• Sound solution with **metrics**, correctly doing the ML method •Proper runs and statistics collections • Proper association between problem and solution shown	• Insufficient or non-convincing empirical runs, no evaluation • No hyper-parameter search, optimization if applicable • No relation between theoretical and empirical analysis	• No theoretical or empirical analysis provided	
WHAT IS LEARNED? **Conclusions**		• Relevant conclusion with support from the **method** sections • Answers "why we have conducted this work "	• Conclusions only stating the obvious from the paper, code, or project	• No conclusions provided • References improper	
				Total (100 pts)	