

PROPOSAL REPORT - JUDGING RUBRIC (50 POINTS TOTAL)

Category	Criteria	Points Available
1. Task Definition, Evaluation Protocol, and Data	Clearly defines the task, dataset, and evaluation metrics. Includes a well-referenced source. Demonstrates a solid understanding of the problem space.	10
2. Learning Model Selection and Summary	Identifies an appropriate machine learning model with relevant references. Provides a clear draft outline, including figures/tables, and ensures the model is feasible for the team to use.	10
3. Experiment Design	Clearly outlines research questions, variables, and hypotheses in a structured table. Provides a well-organized bullet-point summary of expected modifications/code for experimentation.	10
4. Experimental Results and Discussion	Plans how results will be collected and presented (tables, figures). Explains how results will test the hypothesis and discusses possible outcomes (confirmed, contradicted, or unclear) while ensuring clarity in expected learning.	10
5. References	Provides a well-formatted reference list with at least one page of citations covering Sections 1, 2, and optionally Section 3. References are relevant and properly cited.	5
6. Viability Test	Demonstrates ability to run and train the selected model. Includes screenshots and details on runtime, test set size, training samples, and training time per epoch. Confirms model feasibility for further development.	5
Penalties	Only if applicable	
Past Deadline	Subtract 10 points for every day that the submission is late.	

PROPOSAL REPORT – SCORING SCALE

Judgement	Description	If out of 5 points	If out of 10 points
Excellent	Meets or exceeds expectations. The section is well-organized, comprehensive, and clearly articulated. All required components are present, well-supported with references, and demonstrate deep understanding. No significant gaps or errors.	5	9-10
Good	Solid effort with minor shortcomings. The section is mostly complete and well-organized but may have small gaps in explanation, lack clarity in a few areas, or miss minor details. References are mostly appropriate.	4	7-8
Average	Partial completion with moderate gaps. Some required elements are missing or underdeveloped. The explanation may be vague, unclear, or lack supporting details. References may be weak or insufficient.	3	5-6
Needs Improvement	Significant weaknesses in structure and content. The section lacks clarity, omits key elements, or shows limited understanding. References may be missing or improperly cited.	2	3-4
Poor	Minimal effort or major missing components. The section is incomplete, lacks structure, or fails to meet the required expectations. Little to no relevant references.	1	1-2
Not Provided	The required section is missing entirely.	0	0

PROPOSAL PRESENTATION - JUDGING RUBRIC (50 POINTS TOTAL)

Category	Criteria	Points Available
1. Learning Task & Research Question(s)	Clearly defines the learning task and research question(s). Provides relevant background and significance.	10
2. Learning Model	Clearly describes the chosen model, its architecture, and how it aligns with the task. Uses appropriate references.	10
3. Experiment Design (Including Dataset)	Clearly outlines methodology, dataset choice, variable selection, and expected modifications.	10
4. Preliminary Results & Research Relevance	Presents early findings (if any) and explains their significance in relation to the research question(s). Anticipates challenges and potential next steps.	10
5. Quality of Answering Questions	Responds to judges' questions with clarity, depth, and an understanding of the subject. Demonstrates knowledge of the research and methodology.	10
Penalties	Only if applicable	
1. Over time limit	Subtract 2 points from total for every minute over the allotted 10 minutes of presentation	
2. Inactive team members	Subtract 2 points from total for every team member that does not present the required minimum of 2 minutes	

PROPOSAL PRESENTATION – SCORING SCALE

Judgement	Description	Points Available
Excellent	Exceptionally clear, well-organized, and demonstrates deep understanding with strong justification and supporting evidence.	9-10
Good	Well-explained with minor gaps; mostly clear and informative but could improve in depth or structure.	7-8
Average	Addresses key points but lacks clarity, depth, or supporting details; explanations may be vague.	5-6
Needs Improvement	Major gaps in explanation, missing key elements, or difficult to follow.	3-4
Poor	Minimal effort, lacks clarity or relevance, and fails to meet basic expectations.	1-2
Not Provided	The section is missing entirely.	0

FINAL REPORT JUDGING RUBRIC (50 POINTS TOTAL)

Category	Criteria	Points Available
Task Definition, Evaluation Protocol, and Data	Clearly defines the project, task, dataset, and evaluation protocol. Includes well-structured explanations, references, and figures to illustrate the task and evaluation process.	10
Neural Network / Machine Learning Model	Effectively describes the chosen model, loss metric, and key components. Provides justification for model selection and modifications, using relevant figures and properly cited references.	10
Experiment Design	Clearly outlines the research question(s), hypothesis, independent/dependent variables, methodology, and baseline comparisons. Well-structured and logically justified.	10
Experimental Results and Discussion	Presents a strong narrative explaining results, confirming/contradicting the hypothesis, and discussing implications. Includes relevant tables/figures and clear analysis of findings.	10
Formatting, References, and Clarity	Adheres to formatting guidelines, maintains clear structure, properly cites references, and presents content in a well-organized manner.	10
Penalties	Only if applicable	
Past Deadline	Subtract 10 points for every day that the submission is late.	

FINAL REPORT – SCORING SCALE

Judgement	Description	Points Available
Excellent	Exceptionally clear, well-organized, and demonstrates deep understanding with strong justification and supporting evidence.	9-10
Good	Well-explained with minor gaps; mostly clear and informative but could improve in depth or structure.	7-8
Average	Addresses key points but lacks clarity, depth, or supporting details; explanations may be vague.	5-6
Needs Improvement	Major gaps in explanation, missing key elements, or difficult to follow.	3-4
Poor	Minimal effort, lacks clarity or relevance, and fails to meet basic expectations.	1-2
Not Provided	The section is missing entirely.	0

FINAL CODE – JUDGING RUBRIC & SCORING SCALE (50 POINTS TOTAL)

Category	Criteria	Points Available
Code Functionality & Accuracy	The code runs successfully with minimal errors	1-5
	The implemented model produces correct and meaningful results	1-5
	The approach effectively addresses the chosen research question/topic	1-5
Code Organization & Readability	Code is well-structured, modular, and easy to follow	1-5
	Clear and consistent naming conventions, comments, and documentation	1-5
README & Installation Instructions	README provides clear, step-by-step instructions for installation and execution on different operating systems (Linux/Mac/Windows)	1-5
	All dependencies, including GPU requirements if applicable, are explicitly stated	1-5
Use of Frameworks & Innovation	Effective use of existing AI/ML frameworks like TensorFlow or PyTorch	1-5
	Creative modifications, optimizations, or unique contributions beyond standard implementations	1-5
Efficiency & Performance	The code is optimized for performance, considering computation time, memory usage, and scalability	1-5
Penalties	Only if applicable	
Past Deadline	Subtract 10 points for every day that the submission is late.	

FINAL PRESENTATION - JUDGING RUBRIC (50 POINTS TOTAL)

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1. Learning Task & Research Question(s)	Clearly defines the learning task and research question(s). Provides relevant background and significance.	10
2. Learning Model	Clearly describes the chosen model, its architecture, and how it aligns with the task. Uses appropriate references.	10
3. Experiment Design (Including Dataset)	Clearly outlines methodology, dataset choice, variable selection, and expected modifications.	10
4. Preliminary Results & Research Relevance	Presents early findings (if any) and explains their significance in relation to the research question(s). Anticipates challenges and potential next steps.	10
5. Quality of Answering Questions	Responds to judges' questions with clarity, depth, and an understanding of the subject. Demonstrates knowledge of the research and methodology.	10
Penalties	Only if applicable	
1. Over time limit	Subtract 2 points from total for every minute over the allotted 7 minutes of presentation	
2. Inactive team members	Subtract 2 points from total for every team member that does not present the required minimum of 1 minutes	

FINAL PRESENTATION – SCORING SCALE

Judgement	Description	Points Available
Excellent	Exceptionally clear, well-organized, and demonstrates deep understanding with strong justification and supporting evidence.	9-10
Good	Well-explained with minor gaps; mostly clear and informative but could improve in depth or structure.	7-8
Average	Addresses key points but lacks clarity, depth, or supporting details; explanations may be vague.	5-6
Needs Improvement	Major gaps in explanation, missing key elements, or difficult to follow.	3-4
Poor	Minimal effort, lacks clarity or relevance, and fails to meet basic expectations.	1-2
Not Provided	The section is missing entirely.	0

MODEL PERFORMANCE ON UNSEEN DATA - JUDGING RUBRIC FOR (50 POINTS TOTAL)

Category	Criteria	Points Available
1. Accuracy & Generalization	How well does the model perform on the unseen data based on the team's defined evaluation metrics (e.g., accuracy, F1 score, precision, recall)?	10
2. Robustness & Adaptability	Does the model handle variations in the new dataset effectively? Does it maintain reasonable performance despite data differences?	10
3. Consistency with Expected Results	Are the results aligned with what the team predicted in their final report and presentation? Does the model behave as expected?	10
4. Error Analysis & Explanation	Can the team explain why their model performed the way it did? Are they able to analyze errors and provide reasonable justifications?	10
5. Real-World Applicability	Does the model's performance indicate potential for real-world use? Would it be effective beyond the datasets originally used?	10

MODEL PERFORMANCE ON UNSEEN DATA - SCORING SCALE

Judgement	Description	Points Available
Excellent	Model performs exceptionally well on unseen data, closely aligning with expected results. Team provides thorough analysis and explanation of outcomes.	9-10
Good	Model performs well but shows some minor inconsistencies. The team provides reasonable justifications for results.	7-8
Average	Model shows moderate success but struggles with some variations in the unseen data. Explanations are somewhat lacking.	5-6
Needs Improvement	Model does not generalize well to new data, with significant drops in performance. Team struggles to explain issues effectively.	3-4
Poor	Model fails to perform on unseen data, with major discrepancies from expected results. No clear explanation or justification is provided.	1-2
Not Provided		0

POSTER RUBRIC AND SCORING SCALE

Category	Criteria	Excellent (3 points)	Good (2 points)	Needs Improvement (1 point)	Absent (0 points)
Learning Task & Research Question(s)	Clearly defines the learning task and research question(s).	Clearly stated, well-defined, and logically connected to the project. Shows depth of understanding.	Mostly clear, with minor gaps in explanation or connection to project.	Unclear or poorly defined; difficult to understand the purpose of the project.	Not included.
Learning Model(s)	Explanation of the model(s) used in the project.	Clearly explains the model(s), why they were chosen, and how they apply to the problem. Includes necessary details on structure and function.	Mostly clear, but missing some rationale or details on how the model was applied.	Weak or vague explanation; does not adequately describe the model(s).	Not included.
Experiment Design	Description of dataset, modifications, and experiment settings.	Well-documented dataset and modifications, with clear reasoning behind experiment design. Logical and thorough.	Mostly complete, but missing some minor details or clarity in modifications/settings.	Lacks clarity and necessary details; difficult to follow experiment design.	Not included.
Results & Connection to Research Question	Presentation of results and their significance.	Results are clearly displayed using well-organized visuals (tables, charts, etc.). Strong explanation of how findings relate to research question(s).	Results are mostly clear and relevant, but minor gaps in explanation or presentation.	Results are poorly presented or lack connection to research question.	Not included.
Visual Clarity & Organization	Overall design, readability, and effectiveness of the poster.	Poster is visually appealing, well-organized, easy to read, and effectively communicates key points.	Mostly clear and organized, with minor formatting or readability issues.	Poorly designed or disorganized, making it difficult to follow the content.	No poster presented.