CUNY School of Professional Studies

Assignment 2

Activity: Assignment 2: Experimentation & Model Training

Course: 2025 FA [1] DATA 622 001 [25620] Machine Learning and Big Data [Lecture] [School of Professional Studies]

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Criteria	Excellent	Good	Satisfactory	Poor	Criterion Score
Experiments	58–60 points • All 6 experiments completed (2 per algorithm). • Each includes a clear objective, meaningful variation, defined metric, and well-documented execution. • Results interpreted accurately with strong conclusions and justified recommendations. • Experiments tracked systematically (notebook well-organized).	56–57 points • All 6 experiments completed (2 per algorithm). • Each includes a clear objective, meaningful variation, defined metric, and well-documented execution. • Results interpreted accurately with strong conclusions and justified recommendations. • Experiments tracked systematically (notebook well-organized). ✔	51–55 points • 4–5 experiments completed with limited variation or incomplete documentation. • Objectives or metrics not clearly defined. • Conclusions present but weakly supported.	0–50 points • Fewer than 4 experiments completed. • Objectives or metrics missing. • Poor documentation or trivial variations. • No meaningful conclusions or tracking.	57 / 60

Criterion Feedback

Criteria	Excellent	Good	Satisfactory	Poor	Criterion Score
You completed the experiments with clear goals and meaningful variations. Some explanations or analyses could be deeper, but overall your experimental design and tracking were solid.					
Code	19.1–20.0 points • Complete, functional, and well-structured code provided for all experiments. • Includes clear comments, logical organization, and clean formatting. • Outputs (plots, metrics, tables) displayed and interpreted. • Demonstrates advanced understanding of implementation.	17.1–19.0 points • Code complete and mostly well-documented. • Minor formatting or commenting issues. • Outputs present but not consistently interpreted. • Good use of libraries and structure. ✓	15.1–17.0 points • Code runs with minor errors or missing sections. • Inconsistent commenting or unclear logic. • Limited output or incomplete presentation.	0.0–15.0 points • Code incomplete or fails to run. • Missing comments, unclear logic, or poor organization. • No visible results or outputs.	19 / 20

Criterion Feedback

The code runs successfully and includes helpful comments. Some sections could be more clearly structured or annotated, but overall it shows good technical execution.

Criteria	Excellent	Good	Satisfactory	Poor	Criterion Score
Essay	16–20 points • 500+ words, cohesive and insightful. • Comprehensive comparison of bias & variance across all algorithms. • Includes detailed result summary table, strong conclusions, and justified model selection. • Clear business and data science recommendations grounded in results. ✓	11–15 points • 500+ words with good structure. • Covers bias–variance and comparisons with minor gaps. • Includes table and conclusions but lacks full justification. • Recommendations somewhat general.	6–10 points • Essay meets minimum length but lacks depth or clear structure. • Comparisons or conclusions weak or incomplete. • Table missing or minimal discussion.	0–5 points • Essay under length requirement. • No clear comparison, analysis, or conclusion. • Missing key sections (table, recommendations).	20 / 20

Criterion Feedback

The essay is well-written and insightful, clearly explaining bias and variance across all models. You included strong analysis, a detailed results table, and well-justified conclusions and recommendations.

Total	96 / 100

Overall Score

Excellent ✓
Excellent work across all sections with well-designed experiments, clean and functional code, and a thorough essay that clearly analyzed results and justified conclusions.

Good
You met most requirements with solid experiments, well-executed code, and a clear essay, though some areas could benefit from deeper analysis or clearer documentation.

Satisfactory
You completed the core tasks but I would have liked to see more analysis.

Needs Improvement
You assignment needs more work.