



Assignment 3

Activity: Assignment 3: Support Vector Machines

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	Needs Improvement	Criterion Score
SVM - Trained model	18–20 points Fully trained and validated SVM; strong hyperparameter tuning; multiple kernels implemented and compared; outputs included and well-presented. ✓	16–17 points Model trained and validated with minor issues; hyperparameter tuning present but limited; more than one kernel used but comparison not deeply discussed.	11–15 points Basic model training completed; limited evidence of validation; partial or minimal hyperparameter tuning; kernel comparison incomplete; outputs present but not thorough.	0–10 points No working model; missing tuning; single or incorrect kernel use; missing outputs or incomplete code.	20 / 20

Criterion Feedback

You demonstrated strong command of SVM modeling and your training, validation, and hyperparameter tuning were clearly executed. The comparison across kernels was thoughtful and well supported by outputs.

Criteria	Excellent	Good	Satisfactory	Needs Improvement	Criterion Score
Comparison with previous homework	<p>18–20 points Strong comparison with prior work, clearly supported with accurate metrics, visuals, or quantitative evidence</p> 	<p>16–17 points Comparison present but missing some depth or supporting figures; facts included but not fully aligned to discussion.</p>	<p>11–15 points Comparison attempted but superficial; limited facts or figures; unclear link to results.</p>	<p>0–10 points No meaningful comparison; missing factual support; unclear or incorrect references to previous work.</p>	20 / 20

Criterion Feedback

Your comparison to the previous assignments was insightful and well supported with clear results. The facts and figures you included strengthened your analysis. Excellent work tying past performance to current outcomes.

Review of articles provided	<p>19–20 points Demonstrates clear understanding of two provided articles; three external articles with URLs included; strong discussion and comparison of all five; meaningful insights and synthesis.</p> 	<p>16–18 points Shows understanding of the provided articles; external articles listed but limited discussion; some comparison or insight but not fully developed</p>	<p>11–15 points Basic summaries with limited insight; external articles included but weak integration; comparisons minimal.</p>	<p>0–10 points Articles missing or poorly summarized; unclear insights; comparisons absent or incorrect.</p>	20 / 20
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Criterion Feedback

Your analysis shows you fully engaged with the assigned and self selected articles. The insights and comparisons you drew were thoughtful and well articulated. Great job integrating all five sources into a cohesive discussion.

Criteria	Excellent	Good	Satisfactory	Needs Improvement	Criterion Score
Area of expertise/interest	<p>16–20 points Clear, well-articulated explanation of expertise/interest; strong connection between results and stated area.</p> ✓	<p>11–15 points Explanation present but not deeply detailed; results somewhat connected to area of interest.</p>	<p>6–10 points Explanation basic or vague; weak or inconsistent link to results.</p>	<p>0–5 points Minimal explanation; little or no connection between results and area of interest.</p>	20 / 20

Criterion Feedback

You explained your area of interest clearly and linked it effectively to the results of your work. The connection felt meaningful and well supported. Excellent job showing how the course content relates to your personal focus.

Essay	<p>16–20 points Essay meets 500+ words; strong summary and conclusions; well-supported with facts and figures; clear comparison of SVM to prior approaches.</p> ✓	<p>11–15 points Essay meets length and includes summary; some factual support but inconsistently applied; comparison to previous methods present but brief.</p>	<p>6–10 points Essay slightly below depth expectations; minimal summary or weak conclusions; limited facts; light comparison.</p>	<p>0–5 points Essay too short or missing key components; insufficient support; no meaningful comparison; unclear or incomplete writing.</p>	20 / 20
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Criterion Feedback

Your essay was well written and included strong conclusions supported by facts and figures. You also offered a thoughtful comparison between SVM and earlier methods. This was a well developed piece and reflects excellent work.

Total

100 / 100

Overall Score

Excellent

You demonstrated a strong understanding of the concepts and delivered high quality work across all parts of the assignment. Your explanations were clear and supported with thoughtful analysis and relevant evidence. This level of performance shows strong mastery and consistent attention to detail.

Good

You completed the assignment successfully and showed solid understanding of the required concepts. A bit more depth in your explanations and clearer connections across sections would strengthen your work further. You are moving in the right direction and adding more detail will help you reach the highest level.

Satisfactory

You met the expectations of the assignment and showed an understanding of the main ideas. Some sections need more completeness clarity or supporting evidence to fully demonstrate your knowledge. With additional effort and deeper explanation your work can quickly improve.

Needs Improvement

Some elements of the assignment were missing or not fully developed which made it difficult to assess your understanding. Adding more detail clear explanations and evidence will help strengthen your work. With more focus on each requirement you can make significant progress on future assignments.