Data Boot Camp Grading Rubric

Project #4: Machine Learning Integration

Rubric for Skill Drills:

	Proficiency 20 points	Approaching Proficiency 17 points	Developing Proficiency 14 points	Emerging 12 points	Incomplete
Data Model Implementation	Student produces an analytical model in Python that fulfills all the following specifications: √ Script initializes, trains, and evaluates a model, or loads a pretrained model from hyperparameter tuning √ Script cleans, normalizes, and standardizes input data prior to modeling √ Model utilizes data retrieved from a relational database or big data source (SQL or Spark) √ Model demonstrates meaningful predictive power (>75% classification accuracy, >80 R-squared)	Student produces an analytical model in Python that fulfills all the following specifications: √ Script initializes, trains, and evaluates a model, or loads a pretrained model from hyperparameter tuning √ Script cleans, normalizes, and standardizes input data prior to modeling √ Model utilizes data retrieved from a relational database or big data source (SQL or Spark)	Student produces an analytical model in Python that fulfills all the following specifications: √ Script initializes, trains, and evaluates a model, or loads a pretrained model from hyperparameter tuning √ Script cleans, normalizes, and standardizes input data prior to modeling	Student produces an analytical model in Python that fulfills the following specifications: √ Script initializes, trains, and evaluates a model, or loads a pretrained model from hyperparameter tuning -OR- √ Script cleans, normalizes, and standardizes input data prior to modeling	No submission was received -OR- Submission was empty or blank -OR- Submission contains evidence of academic dishonesty

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Data Model Optimization	√ Clear, well-documented evidence of model optimization and performance evaluation in the form of one of the following: √ A CSV/Excel table showing model designs, testing parameters, and model performance √ A Python script that utilizes hyperparameter tuning logic -AND- √ Overall model performance is printed or displayed at the end of the script	√ Some evidence of model optimization and performance testing within Python scripts -AND- √ Overall model performance is printed or displayed at the end of the script	√ Overall model performance is printed or displayed at the end of the script	√ Performance of the model is unknown/unclear	
Project and Documentation Uploaded to GitHub	√ Successfully uploaded to GitHub; demonstrating professional quality of presentation √ GitHub repository is free of unnecessary files and folders and has an appropriate .gitignore in use √ The README is customized to a professional level	√ Successfully uploaded to GitHub; demonstrating professional quality of presentation √ GitHub repository has minimal unnecessary files and folders (no more than two) and has an appropriate .gitignore in use √ The README is customized to a basic level	√ Successfully uploaded to GitHub; demonstrating professional quality of presentation √ GitHub repository has minimal unnecessary files and folders (no more than three) -OR- √ Does not use a .gitignore text file √ The README is minimally customized	√ Unsuccessful uploads to GitHub √ Does not use a .gitignore text file √ The README has no customization	

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Group Presentation	√ All group members spoke during presentation √ Group was well prepared √ Presentation was relevant to material √ Presentation maintains audience interest	√ All group members spoke but didn't split time equally √ Group was mostly prepared, with minor hiccups √ Presentation was almost entirely relevant	√ Some group members barely spoke, others spoke for much longer √ Group was fairly well prepared but encountered some major hiccups √ Presentation was mostly relevant	√ Not all group members spoke during presentation √ Group seemed unprepared, presentation was scattered or confusing √ Presentation was not relevant to material	
Slide Deck	√ Slides are visually clean and professional √ Slides are relevant to material √ Slides effectively demonstrate project √ Slides are clear and maintain audience interest	√ Slides are visually clean and professional but contain minor areas for improvement √ Slides are almost entirely relevant to material √ Slides are mostly effective at demonstrating project	√ Slides are visually clean and professional but contain areas for improvement √ Slides are somewhat relevant to material √ Slides are somewhat effective at demonstrating project	√ Slides are not visually clean and professional and contain substantial areas for improvement √ Slides are not relevant to material √ Slides do not effectively demonstrate project	