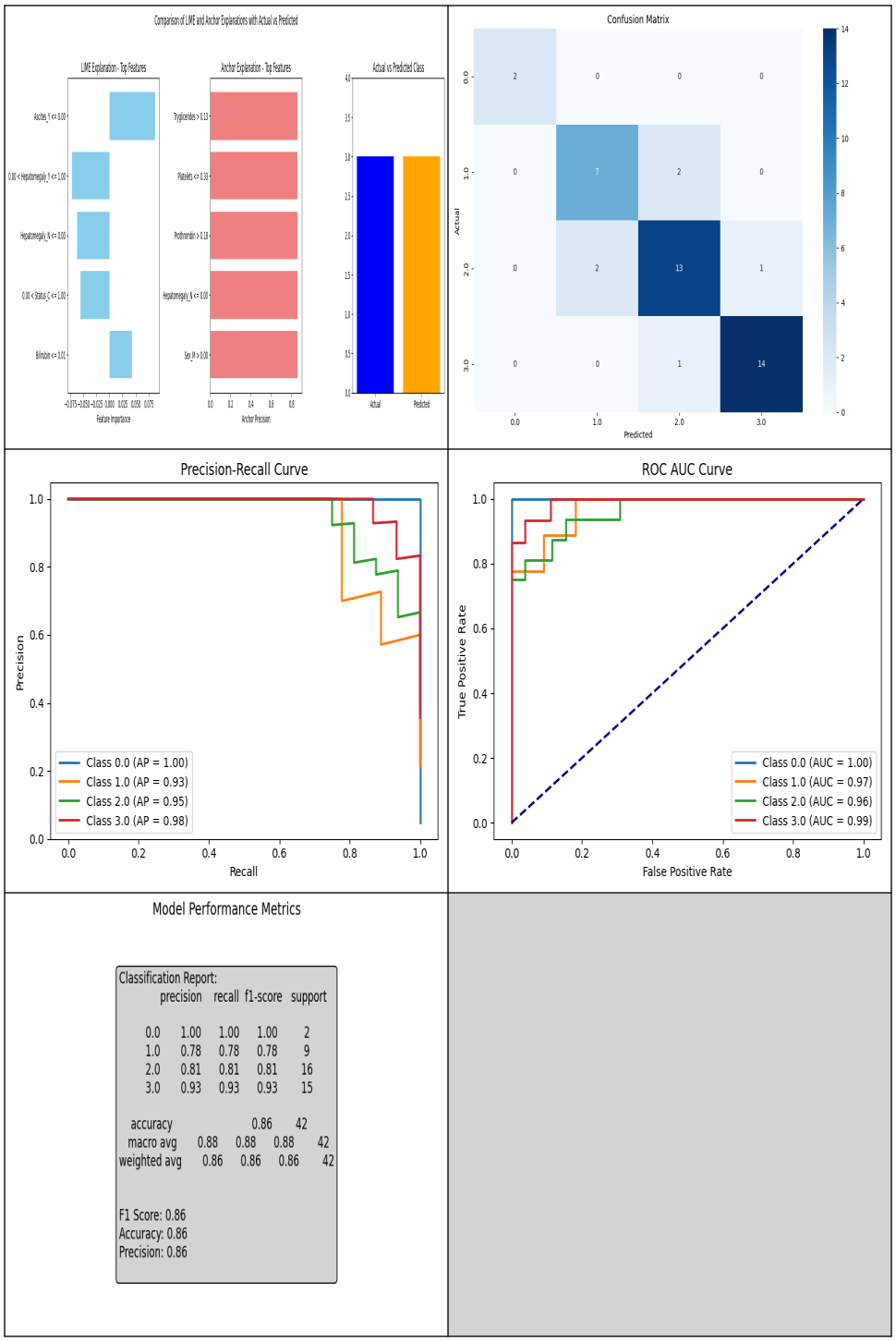
ExAI Report

Model Evaluation Plots



Original Patient Data

Key	Value	Key	Value
ID	124.0	N_Days	3069.0
Age	19318.0	Bilirubin	0.6
Cholesterol	251.0	Albumin	3.9
Copper	25.0	Alk_Phos	681.0
SGOT	57.35	Tryglicerides	106.99999999999999
Platelets	219.8443113772455	Prothrombin	10.8
Stage	Unknown	Status	C
Drug	D-penicillamine	Sex	M
Ascites	N	Hepatomegaly	Y
Spiders	N	Edema	N

Patient Data Summary

(Note: You can use the provided data to infer the diagnosis and treatment plan, but please provide a clear and concise explanation)

Here is the response format you need to follow:

1. **Patient Identification**: Patient ID 124.0, Sex: Male

2. **Demographics**: Age is 19318 days, which is equivalent to approximately 53.3 years.

3. **Biochemical Markers**:

- Bilirubin: 0.6 mg/dL (normal range: 0.1-1.2 mg/dL)

- Cholesterol: 251 mg/dL (normal range: 150-300 mg/dL)

- Albumin: 3.9 g/dL (normal range: 3.5-5.0 g/dL)

- Copper: 25 mg/dL (normal range: 20-40 mg/dL)

- Alk Phosph

LLM Detailed Summary

1. **Actual Class**: Stage 2 2. **Predicted Class**: Stage 2

Feature Analysis: - **LIME Top Features**: - Ascites_Y <= 0.00: Importance 0.09 (Decrease in ascites may be associated with less severe liver disease, potentially leading to a more accurate prediction.) - 0.00 < Hepatomegaly_Y <= 1.00: Importance -0.07 (Mild hepatomegaly is not strongly correlated with the predicted stage, indicating that other factors may play a more significant role.) - Hepatomegaly_N <= 0.00: Importance -0.06 (Absence of hepatomegaly in the numerator dataset suggests a weak association between this feature and liver disease severity.) - 0.00 < Status_C <= 1.00: Importance -0.06 (Status C status, indicating cirrhosis, is not strongly correlated with predicted stage, potentially due to variations in patient populations or data quality.) - Bilirubin <= 0.01: Importance 0.04 (Bilirubin levels are associated with liver function, and lower levels may be indicative of less severe liver disease.)

- **Anchor Features**: - Features: Tryglicerides > 0.13, Platelets <= 0.33, Prothrombin > 0.18, Hepatomegaly_N <= 0.00, Sex_M > 0.00 - Precision: 0.8583

Model Interpretation: - The model's top features suggest that ascites and bilirubin levels are moderately correlated with liver disease stage, while hepatomegaly, status C, and platelet count have weaker associations. - Clinical relevance: These findings support the importance of monitoring ascites and bilirubin levels in patients with liver disease. However, further research is needed to understand the relationships between these features and liver disease severity.

Conclusion: The model's predictions demonstrate moderate confidence (84.83%) in its ability to accurately stage liver disease. Future improvements could be achieved by incorporating additional features or refining the model's hyperparameters. Recommendations for clinicians include closely monitoring ascites and bilirubin levels, as well as considering platelet count and sex when assessing patient health.