Task 1 News Classifier Stream lit Output

News Topic Classifier

Classify news headlines into one of four categories: World, Sports, Business, or Sci/Tech
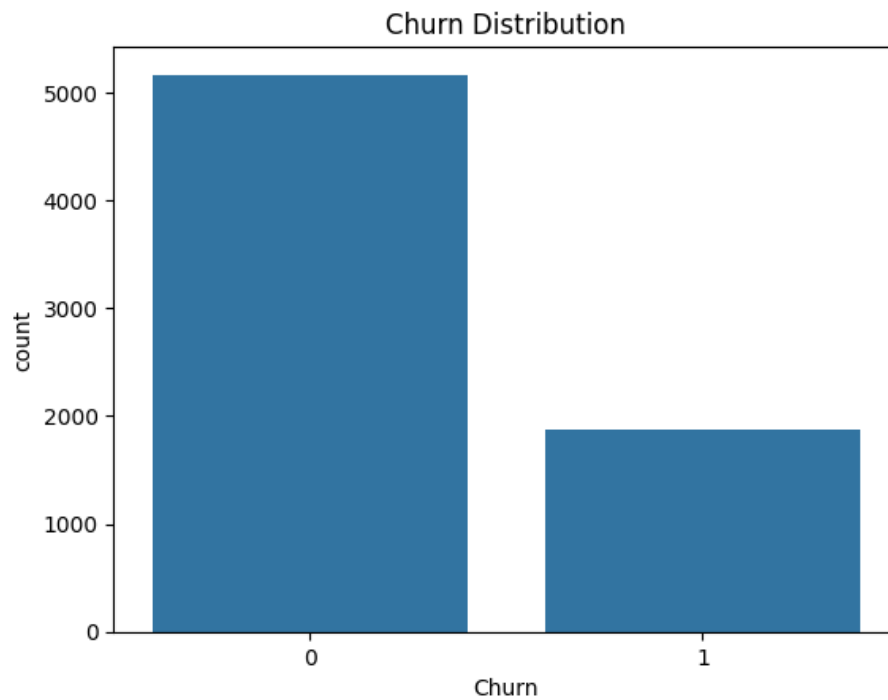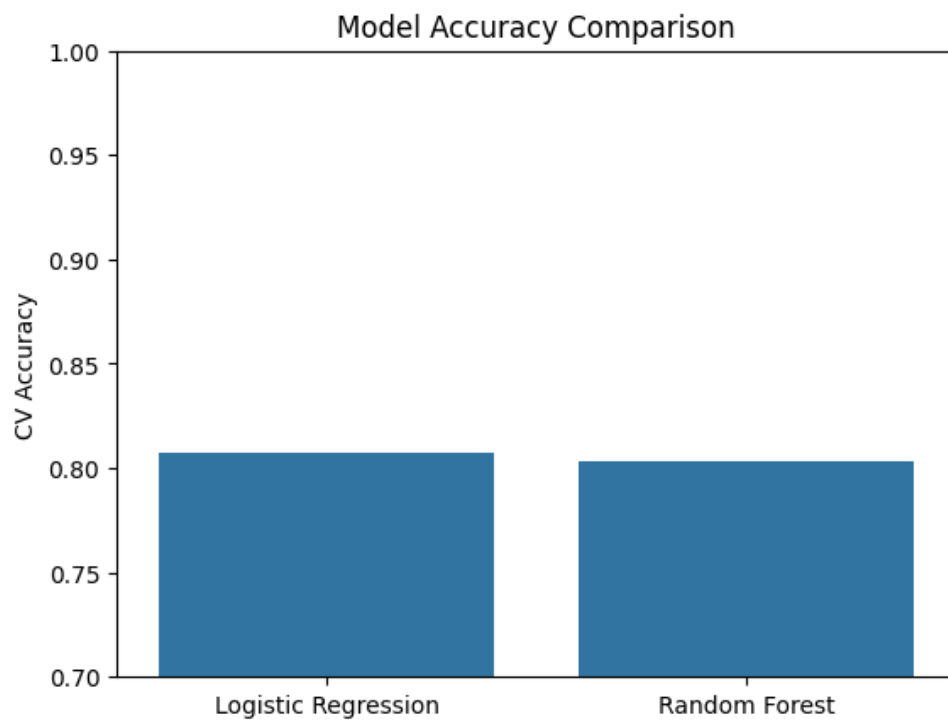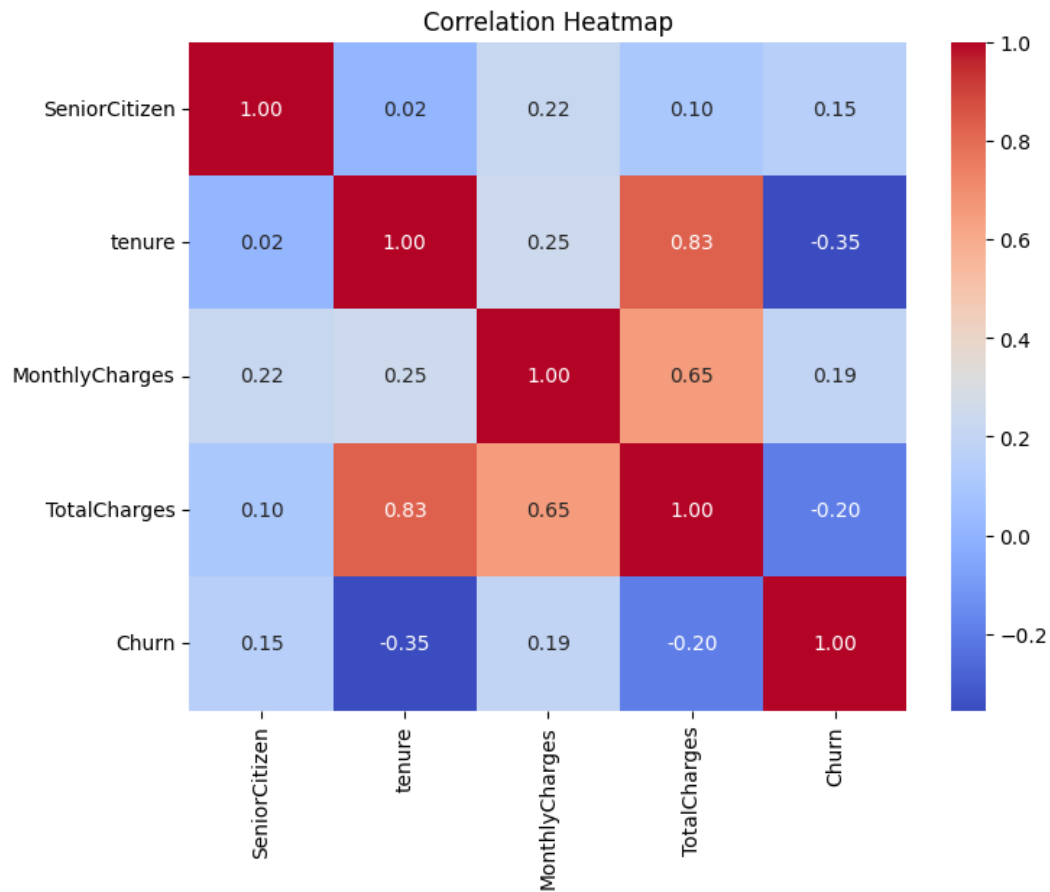
Enter news headline or text:

Gravitational-Wave Detectors Capture Record-Breaking Black Hole Merger, Forming a 225-Solar-Mass Titan.

Classify

Predicted category: Sci/Tech

Task 2 Model Comparisons Outputs

Churn Distribution

Correlation Heatmap

Model Accuracy Comparison

Task 5 Classification Confidence Scores

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=== Zero-Shot Classification ===

Device set to use cuda:0
Top 3 tags: [('Customer Support', 0.9990885257720947), ('Customer Service',
0.996067464351654), ('SaaS', 0.995919406414032)]


=== Few-Shot Classification ===
Top 3 tags: [('MongoDB4.4', 0.5770582556724548), ('Nuendo',
0.5690120458602905), ('Promotion,rabatte,Diienstleistung',
0.5670577883720398)]

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Testing Multiple Support Tickets
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Ticket: 'I can't login to my account - getting error messages'
Predicted Tags:
1. Billing (61.0%)
2. Resolution (41.6%)
3. Payment (31.6%)
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Ticket: 'The mobile app crashes when I try to view my profile'
Predicted Tags:
1. Technical (84.4%)
2. Resolution (47.8%)
3. Bug (44.3%)
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Ticket: 'How do I reset my password?'
Predicted Tags:
1. Documentation (58.8%)
2. Technical (50.9%)
3. Security (45.1%)
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Ticket: 'Payment failed but my card was charged'
Predicted Tags:
1. Billing (67.4%)
2. Payment (41.6%)
3. Feedback (23.9%)
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Ticket: 'Feature request: dark mode for the dashboard'
Predicted Tags:
1. Technical (50.0%)
2. Performance (40.6%)
3. Documentation (39.4%)
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Ticket: 'The website is very slow today'
Predicted Tags:
1. Performance (57.1%)
2. IT (45.1%)
3. Tech Support (44.3%)
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Testing Multiple Support Tickets
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Ticket: 'Where can I download my invoice?'
Predicted Tags:
1. Billing (51.7%)
2. Documentation (38.7%)
3. Payment (29.3%)
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Ticket: 'The search function returns wrong results'
Predicted Tags:
1. Technical (73.2%)
2. Bug (67.4%)
3. Resolution (50.3%)
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Ticket: 'Two-factor authentication not working'
Predicted Tags:
1. Billing (32.9%)
2. Technical (29.5%)
3. Resolution (28.3%)
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