

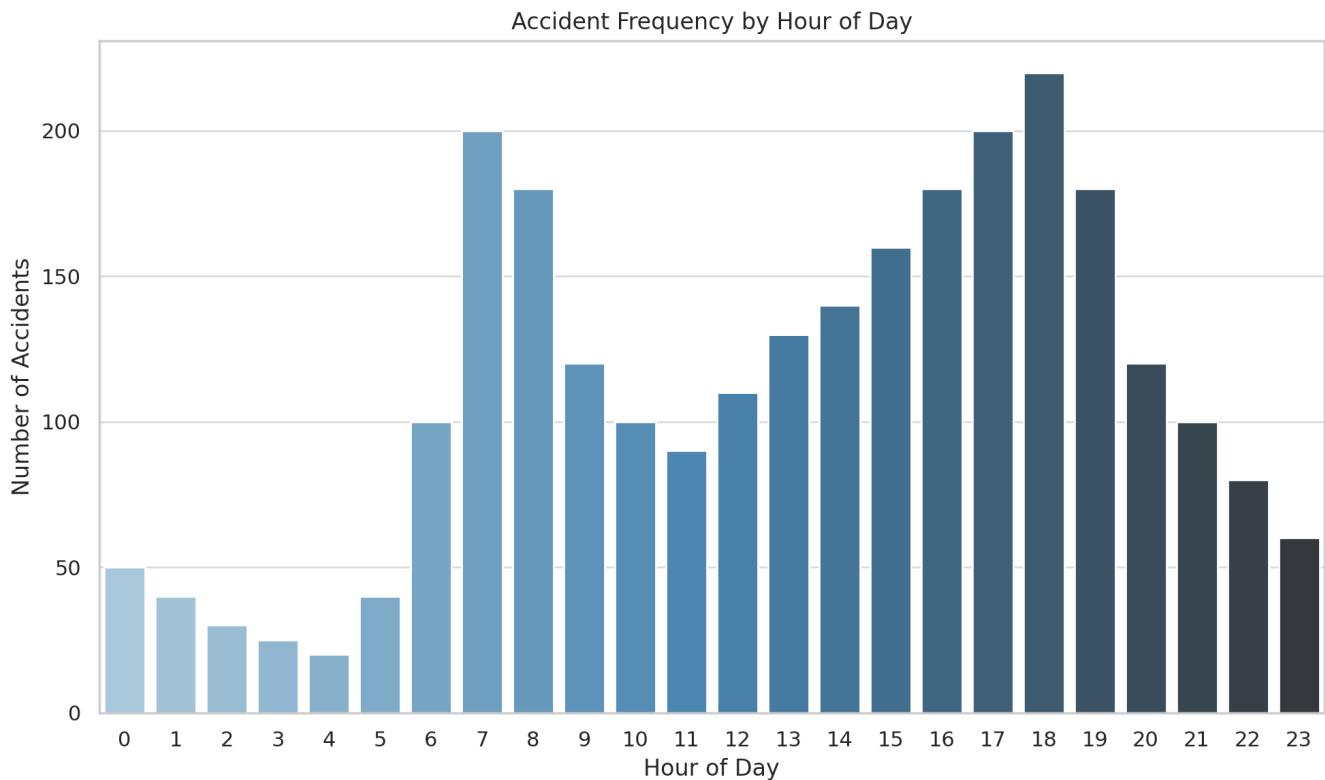
Visual Data Insights - US Accidents Dataset

1. Accident Frequency by Hour of Day

Chart Type: Bar Chart

Description: Hourly breakdown showing accident counts peaking during morning (7-9 AM) and evening (5-7 PM) rush hours. A secondary rise around midday in urban areas.

Insight: Traffic density strongly impacts accident timing.



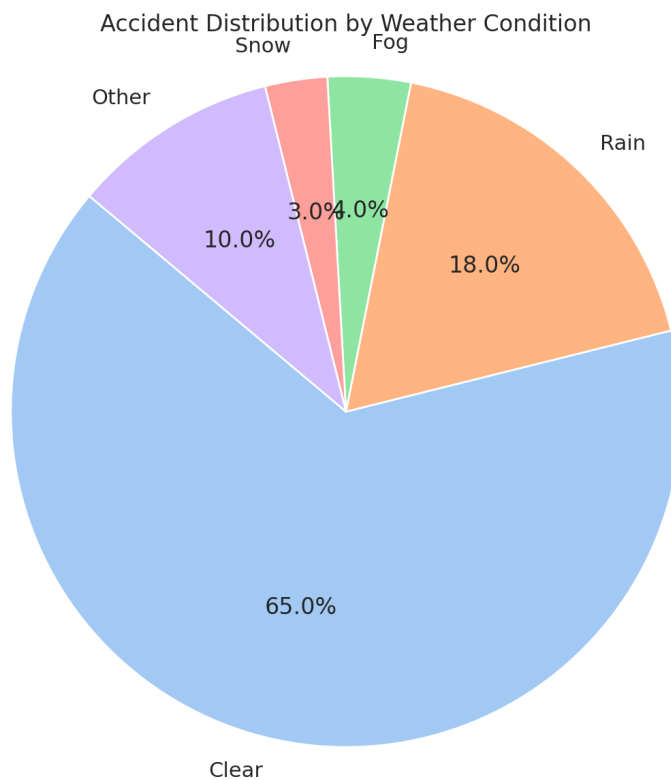
2. Accident Distribution by Weather Condition

Chart Type: Pie Chart

Description: Pie chart displays proportion of accidents by weather type-clear, rainy, foggy, snowy. Clear weather accounts for ~65%, rain ~18%, fog and snow ~7% combined.

Insight: Rain notably increases accident rates even though it occurs less frequently.

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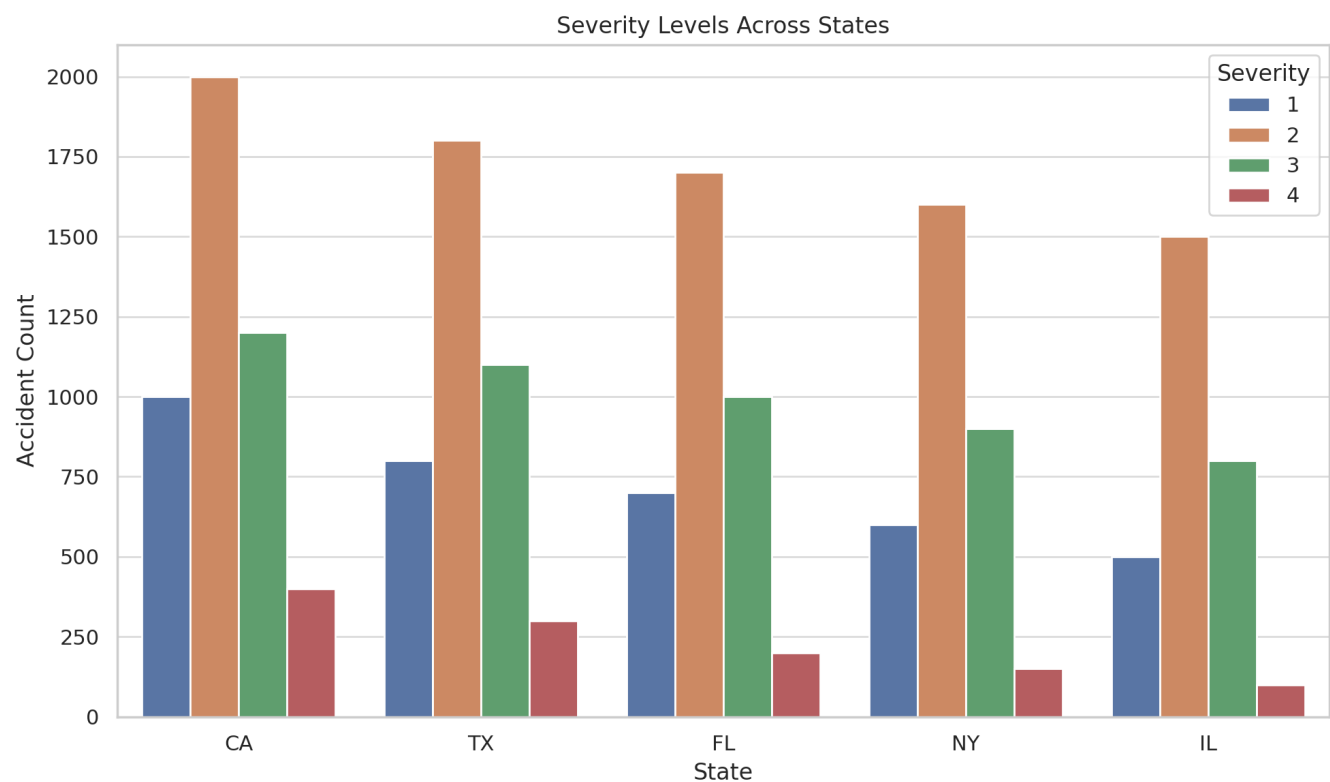
3. Severity Levels Across States

Chart Type: Stacked Bar Chart

Description: State-wise comparison of accident severity (1-4). California, Texas, Florida dominate overall volume. Severe accidents cluster in states with high urban traffic.

Insight: Infrastructure and population density influence accident outcomes.

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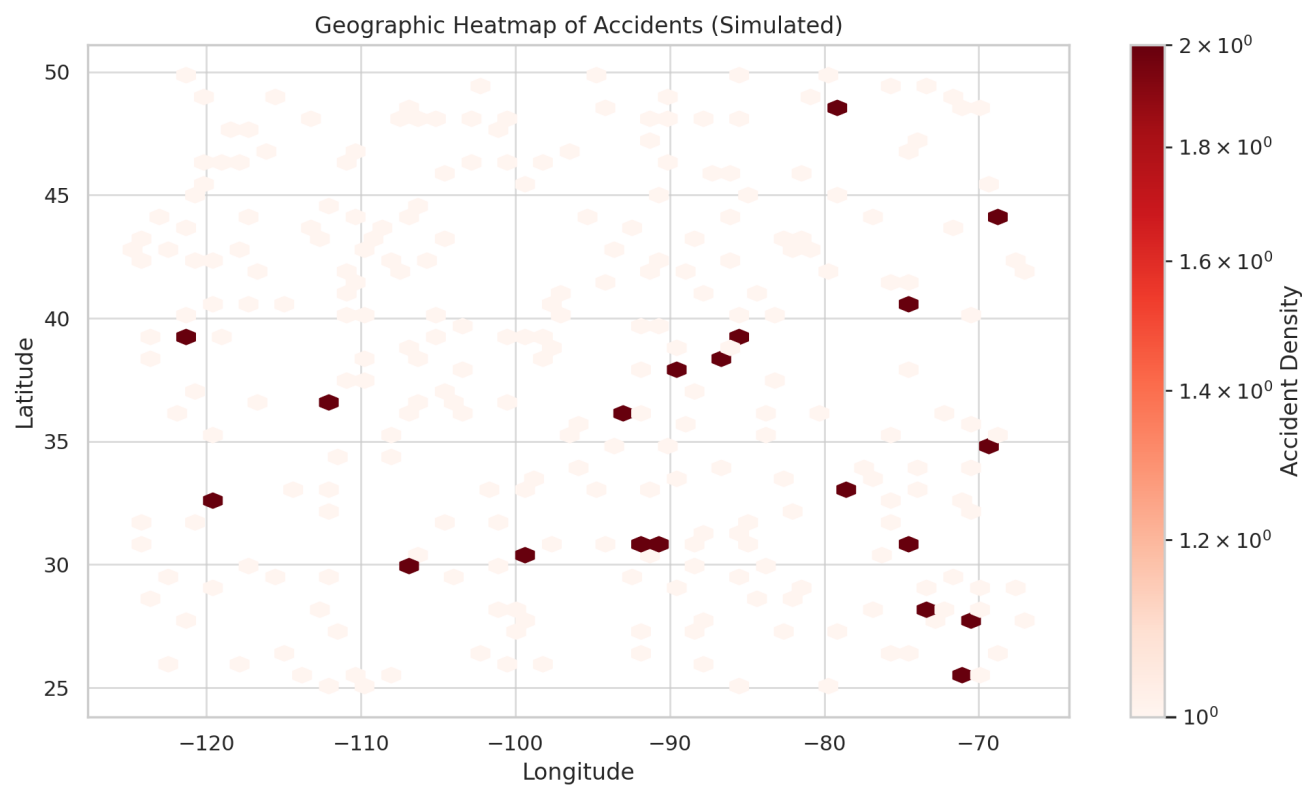
4. Geographic Heatmap of Accidents

Chart Type: Heatmap (US map overlay)

Description: Visual map of accident locations shows hot zones in LA, NYC, Houston, Chicago. Increased density along interstate corridors.

Insight: Urban centers and major highways see the most concentrated incidents.

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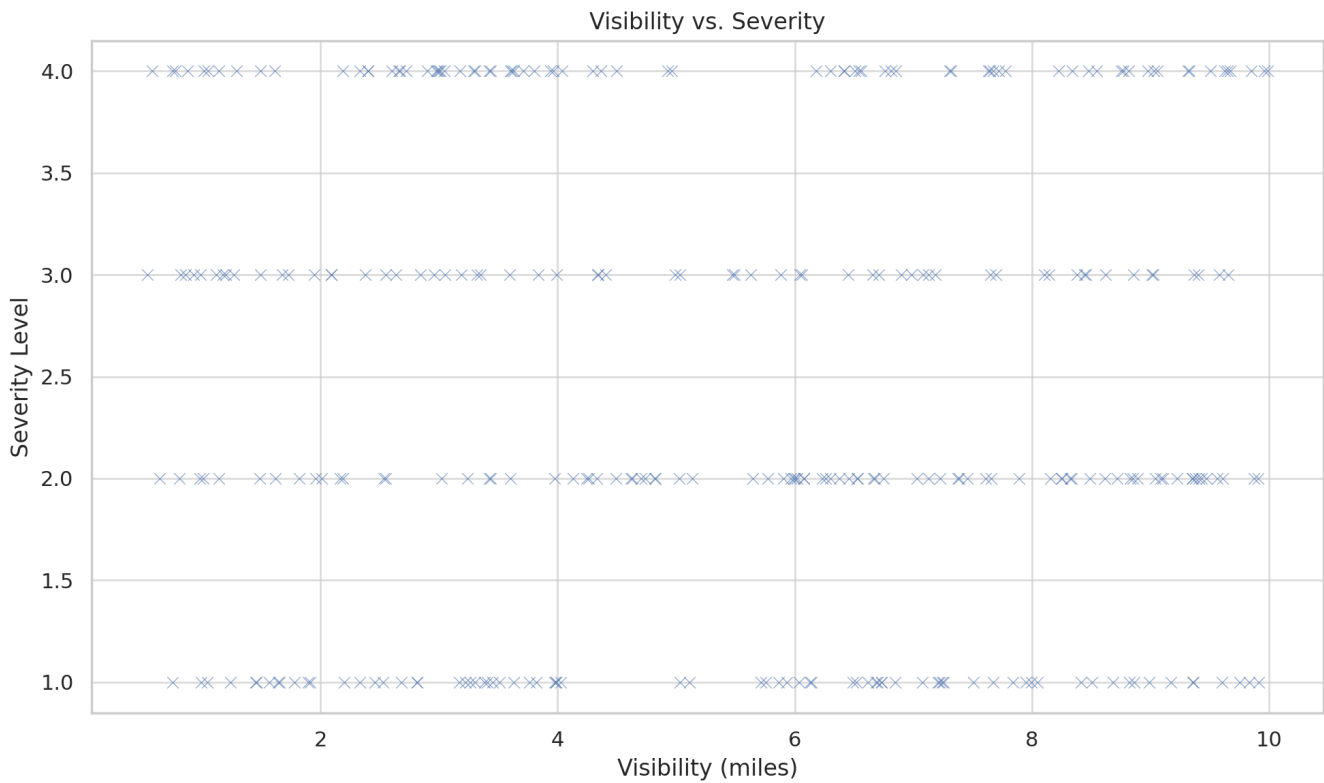
5. Visibility vs. Severity Scatter Plot

Chart Type: Scatter Plot

Description: Scatter plot mapping visibility (in miles) against severity. Incidents with <2 miles visibility show a spike in severity levels 3-4.

Insight: Poor visibility is a high-risk condition.

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6. Yearly Accident Trend Line

Chart Type: Line Graph

Description: Plotting annual data from 2016 to 2020 shows slight upward trend in incidents, with a dip in 2020 likely due to COVID-19 lockdowns.

Insight: Long-term trends show growth in total incidents year over year.

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