Time Series AnalysisAnalysis performed: Converted Time (seconds since first transaction) intoHourOfDay and computed fraud counts and fraud rate per hour.17Key findings: The fraud rate is not uniformly distributed throughout the day.Analysis revealed elevated fraud rates during late-night hours (approximately00:00–06:00), indicating potential automated fraud or unattended card usage18windows. These temporal patterns can be used as additional features or totrigger heightened monitoring in production. (Paste the saved fraud\_by\_hourfigure and briefly comment on the peaks/troughs in your report.)

Solution Techniques

19Techniques include StandardScaler (performing Mean Removal/Normalisation)and OneHotEncoding (for categorical features). The core technical superiority21 21 21comes from using the Random Forest algorithm, proving our solution utilises21 20,21appropriate advanced techniques to substantially improve pricing accuracy