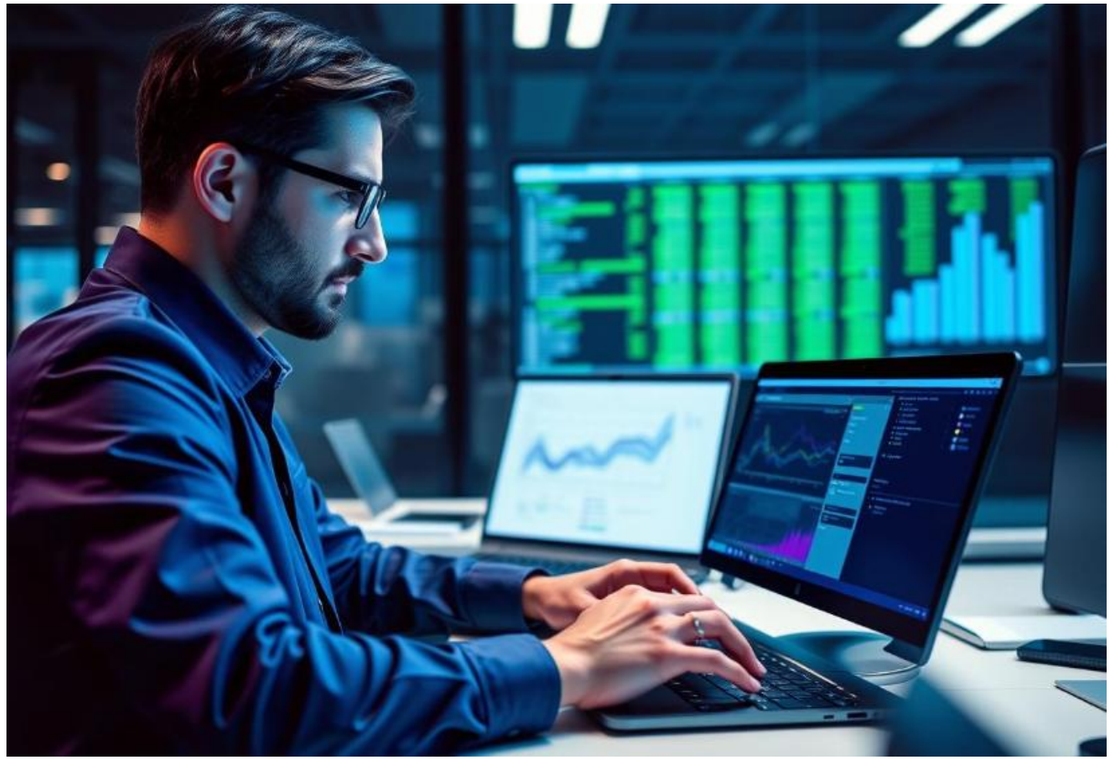
Emergency Room Performance and Triage Efficiency

An analysis of emergency room data to improve triage efficiency and overall performance.

Introduction

Hi, I’m **Yaswanth Kundurthi**, an aspiring Data Analyst passionate about solving real-world problems using data.

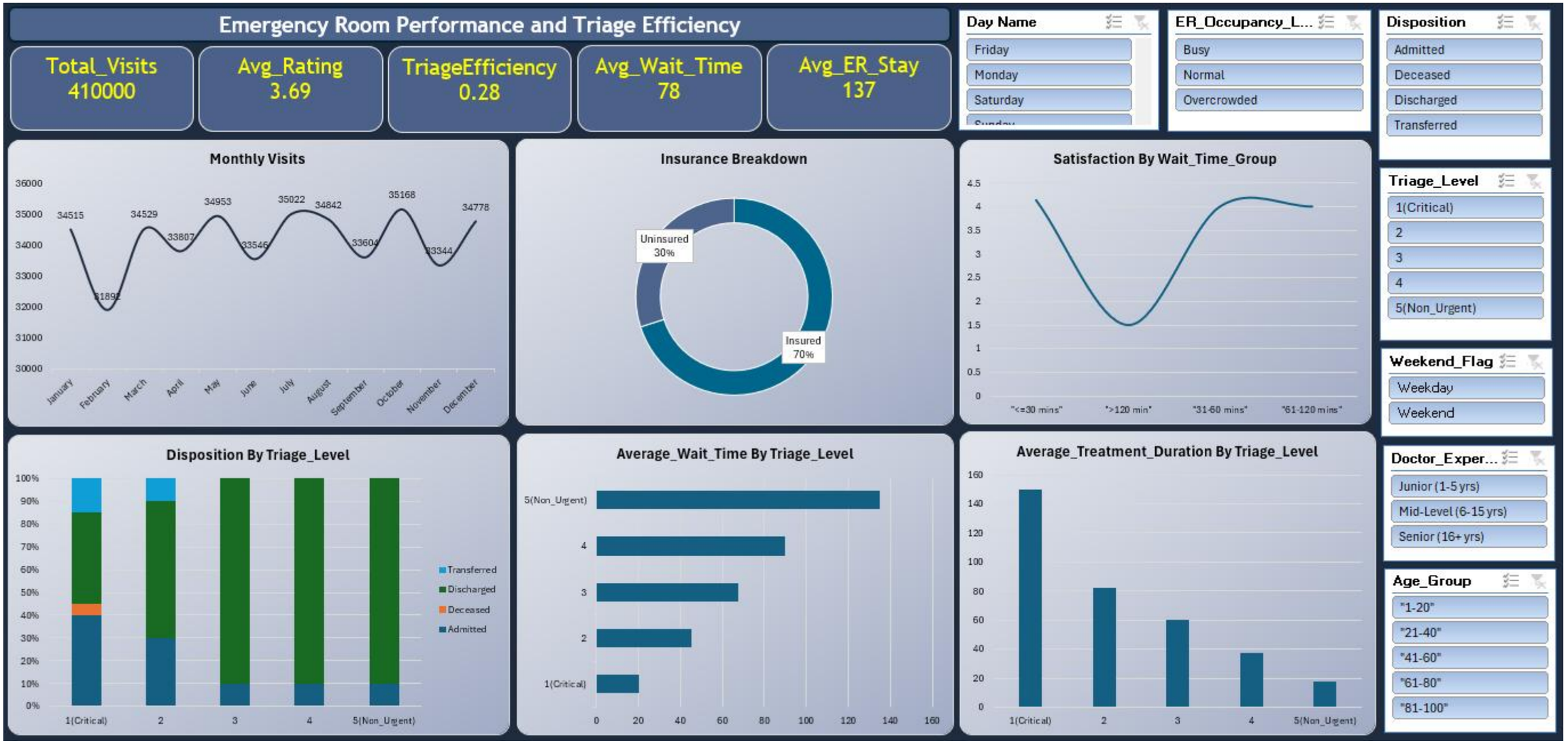
Project: Emergency Room Performance & Triage Efficiency.



Built in Excel

Analysis built fully in Excel with over 410,000 records.

DASHBOARD


Emergency Room Performance and Triage Efficiency
Total_Visits
410000
Avg_Rating
3.69
TriageEfficiency
0.28
Avg_Wait_Time
78
Avg_ER_Stay
137
Day Name
Friday
Monday
Saturday
ER_Occupancy_L...
Busy
Normal
Overcrowded
Disposition
Admitted
Deceased
Discharged
Transferred
Monthly Visits
36000
35000
34000
33000
32000
31000
30000
34515
31892
34529
33807
34953
33546
35022
34842
33604
35168
33344
34778
January
February
March
April
May
June
July
August
September
October
November
December
Insurance Breakdown
Uninsured
30%
Insured
70%
Satisfaction By Wait_Time_Group
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
"<=30 mins"
">120 min"
"31-60 mins"
"61-120 mins"
Triage_Level
1(Critical)
2
3
4
5(Non_Urgent)
Weekend_Flag
Weekday
Weekend
Disposition By Triage_Level
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
1(Critical)
2
3
4
5(Non_Urgent)
Transferred
Discharged
Deceased
Admitted
Average_Wait_Time By Triage_Level
5(Non_Urgent)
4
3
2
1(Critical)
0
20
40
60
80
100
120
140
160
Average_Treatment_Duration By Triage_Level
160
140
120
100
80
60
40
20
0
1(Critical)
2
3
4
5(Non_Urgent)
Doctor_Exper...
Junior (1-5 yrs)
Mid-Level (6-15 yrs)
Senior (16+ yrs)
Age_Group
"1-20"
"21-40"
"41-60"
"61-80"
"81-100"

Objective

KPIs

Understand KPIs: ER wait time, triage efficiency, doctor workload, and patient satisfaction.

Bottlenecks

Identify bottlenecks in the emergency care process to streamline workflows.

Recommendations

Reduce waiting times and improve critical patient treatment response.

Dataset & Tools

Microsoft Excel

Data Cleaning, Analysis, Dashboard.

Data

410K records with realistic ER visit attributes.

Visual Storytelling

Used power query, pivot tables, slicers, charts.

Key Metrics

410K

Total ER Visits

78

Avg. Wait Time

Minutes

137

Avg. ER Stay

Minutes

3.69

Avg. Satisfaction

/5

Dashboard Highlights

Monthly Visit Trends

Peak analysis.

Insurance Coverage

70% insured.

Satisfaction Trends

By wait time.

Key Insights

Critical Wait

Triage Level 1: 18 minutes average wait.

Non-Urgent

Waited 3x longer, alternate care pathways needed.

Senior Doctors

Handled most Critical cases effectively.

Satisfaction

Dropped when wait times exceeded 120 minutes.

Business Impact

Reduce Patient Churn

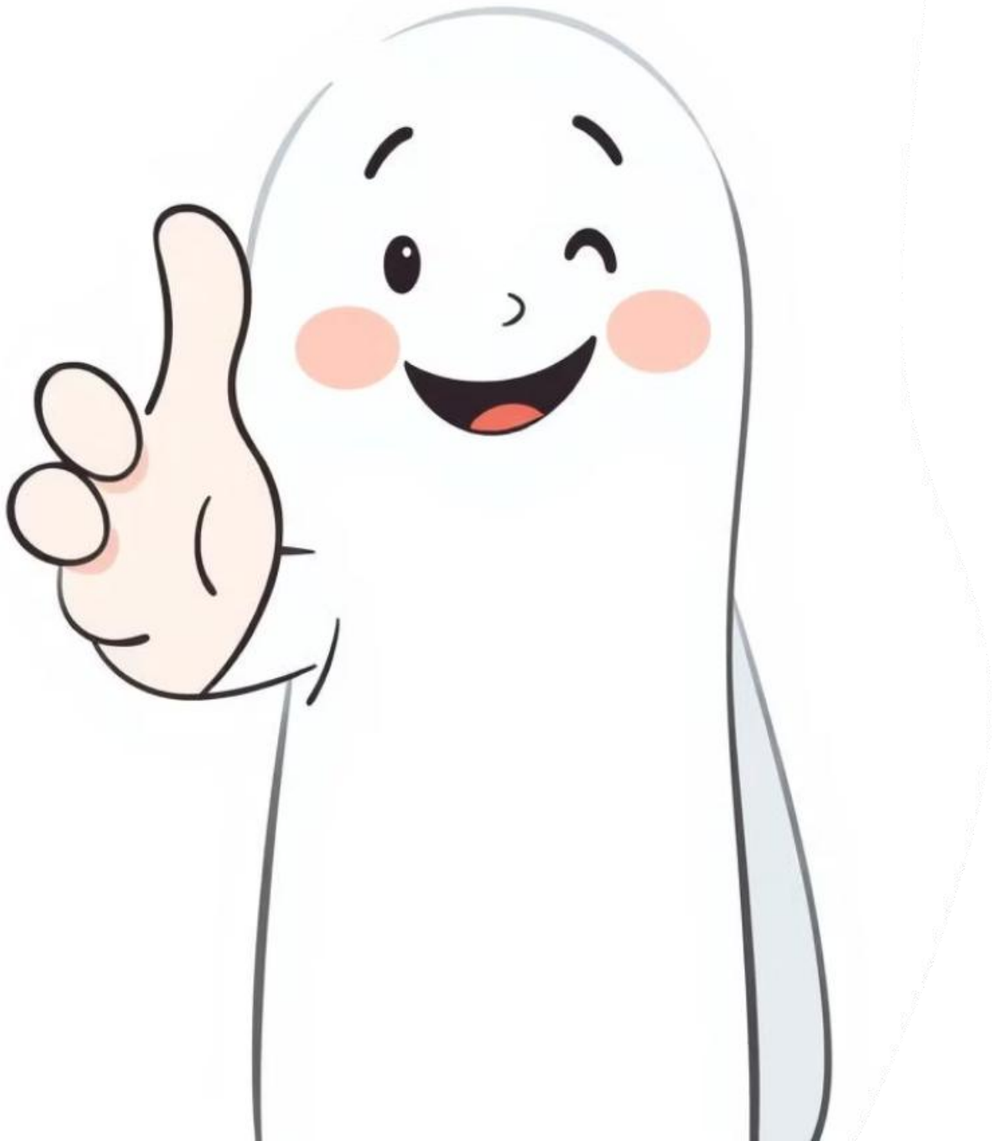
Data-driven triage improves patient retention.

Improve Staffing

Optimize doctor assignment & peak-hour management.

Boost Efficiency

Increases operational efficiency and patient satisfaction.



Thank You

If you're hiring or know someone who is - Let's connect!