Intern Innovation Challenge

Smart Triaging and Rescue System

TECHNOLOGY DEVELOPMENT PROGRAM

Dallas Team 3
Naren Alluri, Derek Fu, Faisal Hasan, Sai Neelanjana, and Eric Zhou

650, 000

Problems of Current Dispatching Service

- Long and continuous process
- Small mistakes lead to improper diagnosis
- On average, 10,000 more lives could be saved every year if the response times were to be reduced by 1 minute

Smart Triaging and Rescue System

AT&T

Team Members

Naren Alluri
Software Engineer Intern
Developer

Derek Fu
Data Analyst Intern
Developer/Scrum Master

Faisal Hasan
Network Engineer Intern
Product Owner

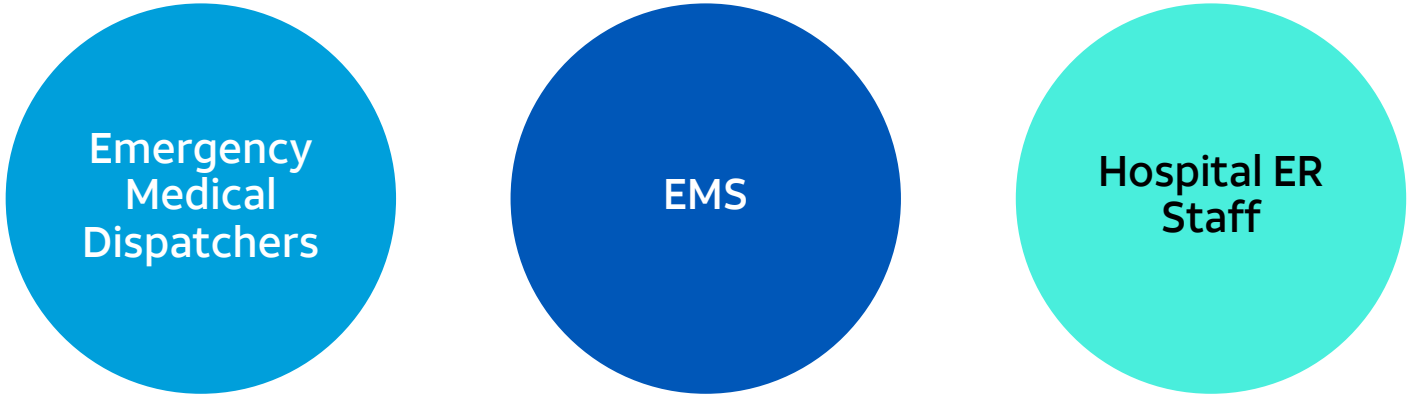
Sai Neelanjana
System DevOps Engineer Intern
Scrum Master

Eric Zhou
Software Engineer Intern
Developer/Product Owner

Agenda

1. Introduction
2. Target Users of STARS
3. Design Approach
   - User Flow, Prototypes, & Software Used
   - Dataset Creation & AI Workflow
4. Product Demo
5. Benefits & Impact
6. Next Steps and Enhancements
7. Challenges
8. Q&A
9. Appendix

Target Users



They are the ones that emergency medical 911 calls get transferred to

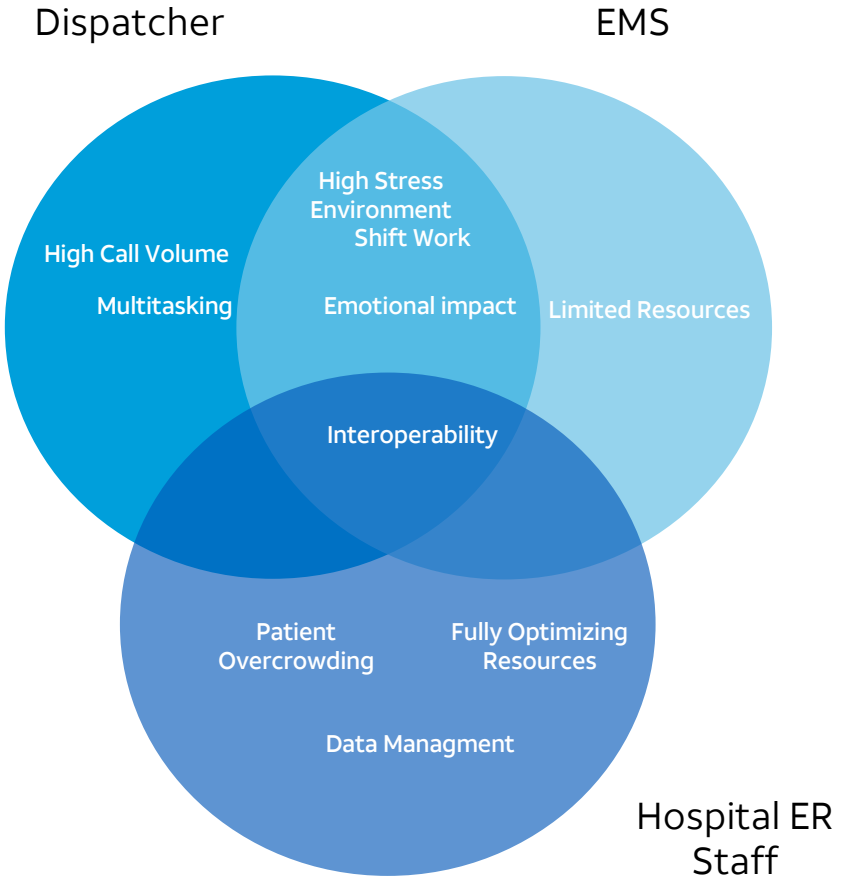
This includes EMTs and or Paramedics that respond to dispatch calls

This team in the Emergency Room is responsible for connecting with the EMS to get the patient appropriate care

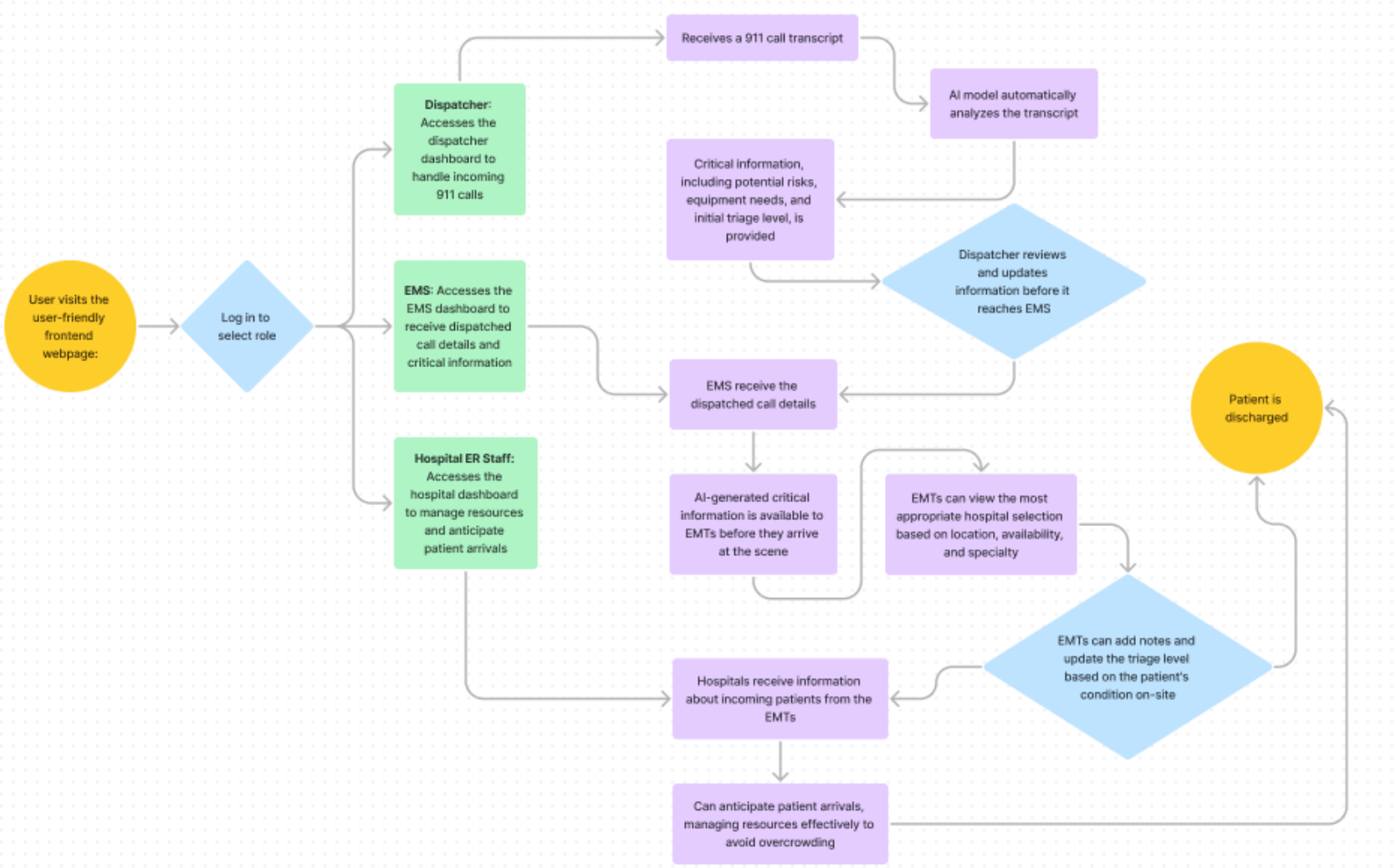
User Personas

Pain Points

- While there are similarities, there are also things unique to each role
- Decided to make dashboard with role specific views



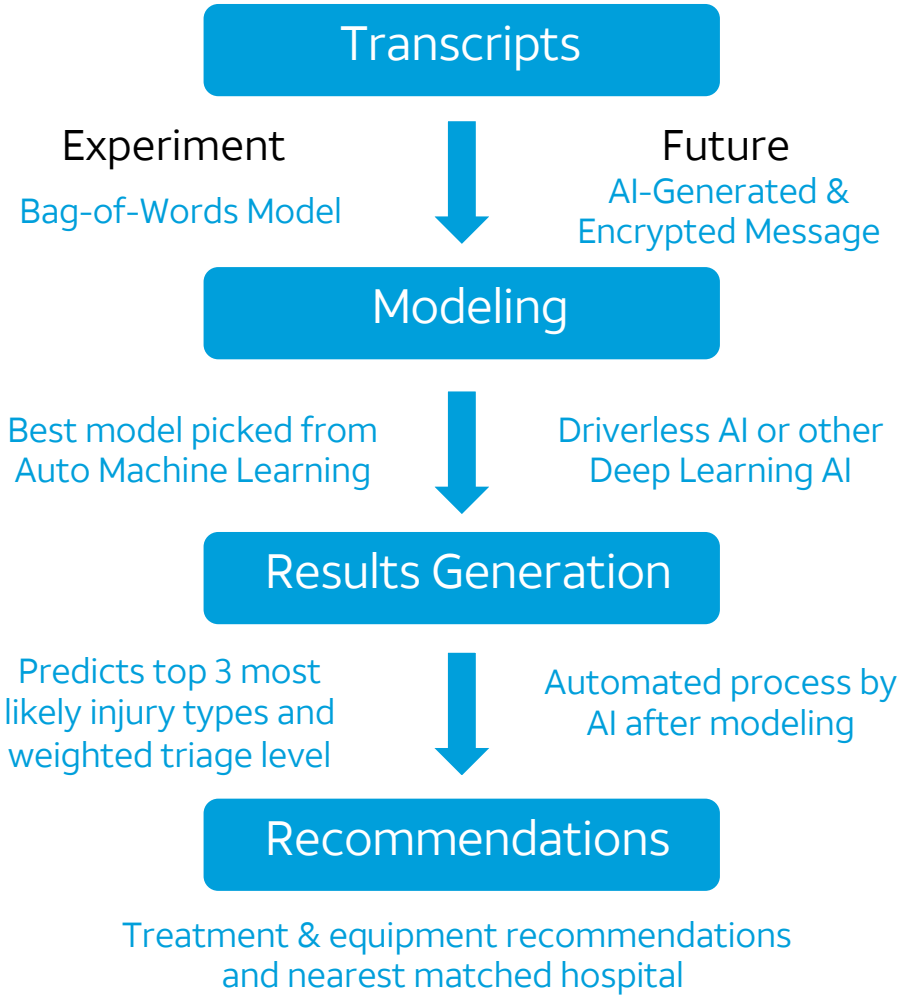
User Flow


User visits the user-friendly frontend webpage:
Log in to select role
Dispatcher: Accesses the dispatcher dashboard to handle incoming 911 calls
EMS: Accesses the EMS dashboard to receive dispatched call details and critical information
Hospital ER Staff: Accesses the hospital dashboard to manage resources and anticipate patient arrivals
Receives a 911 call transcript
AI model automatically analyzes the transcript
Critical information, including potential risks, equipment needs, and initial triage level, is provided
Dispatcher reviews and updates information before it reaches EMS
EMS receive the dispatched call details
AI-generated critical information is available to EMTs before they arrive at the scene
EMTs can view the most appropriate hospital selection based on location, availability, and specialty
EMTs can add notes and update the triage level based on the patient's condition on-site
Patient is discharged
Hospitals receive information about incoming patients from the EMTs
Can anticipate patient arrivals, managing resources effectively to avoid overcrowding

AI Workflow

Fake Datasets Generated for The Experiment

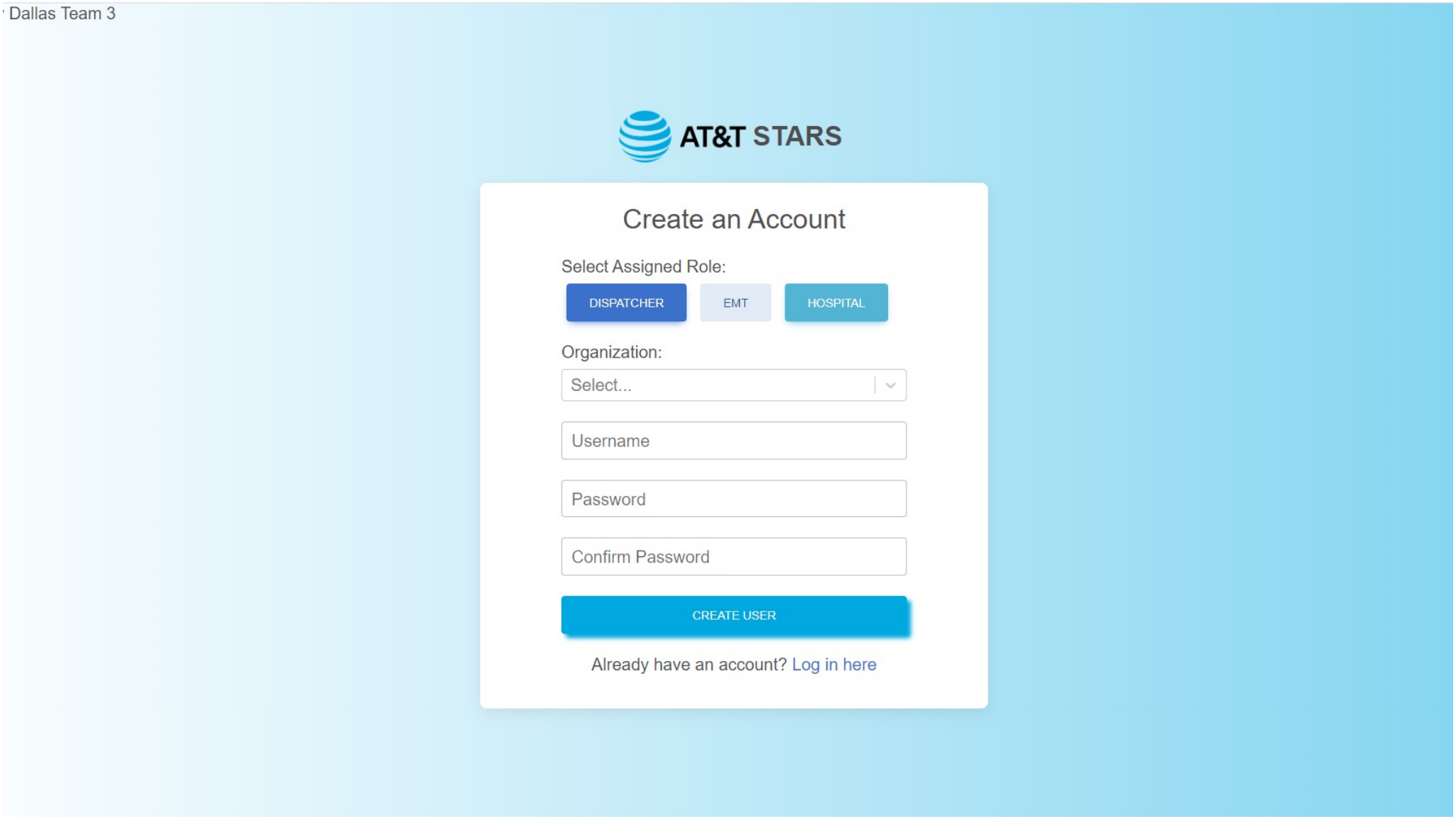
Dataset Name	Information Contained
Personal Information	Basic personal information
Patient Data	Patient names, locations, scripts, and injury types
Recommended Actions & Equipment	AI-generated recommended treatment and equipment for different injury types
Hospital Data	Hospital locations and their specializations



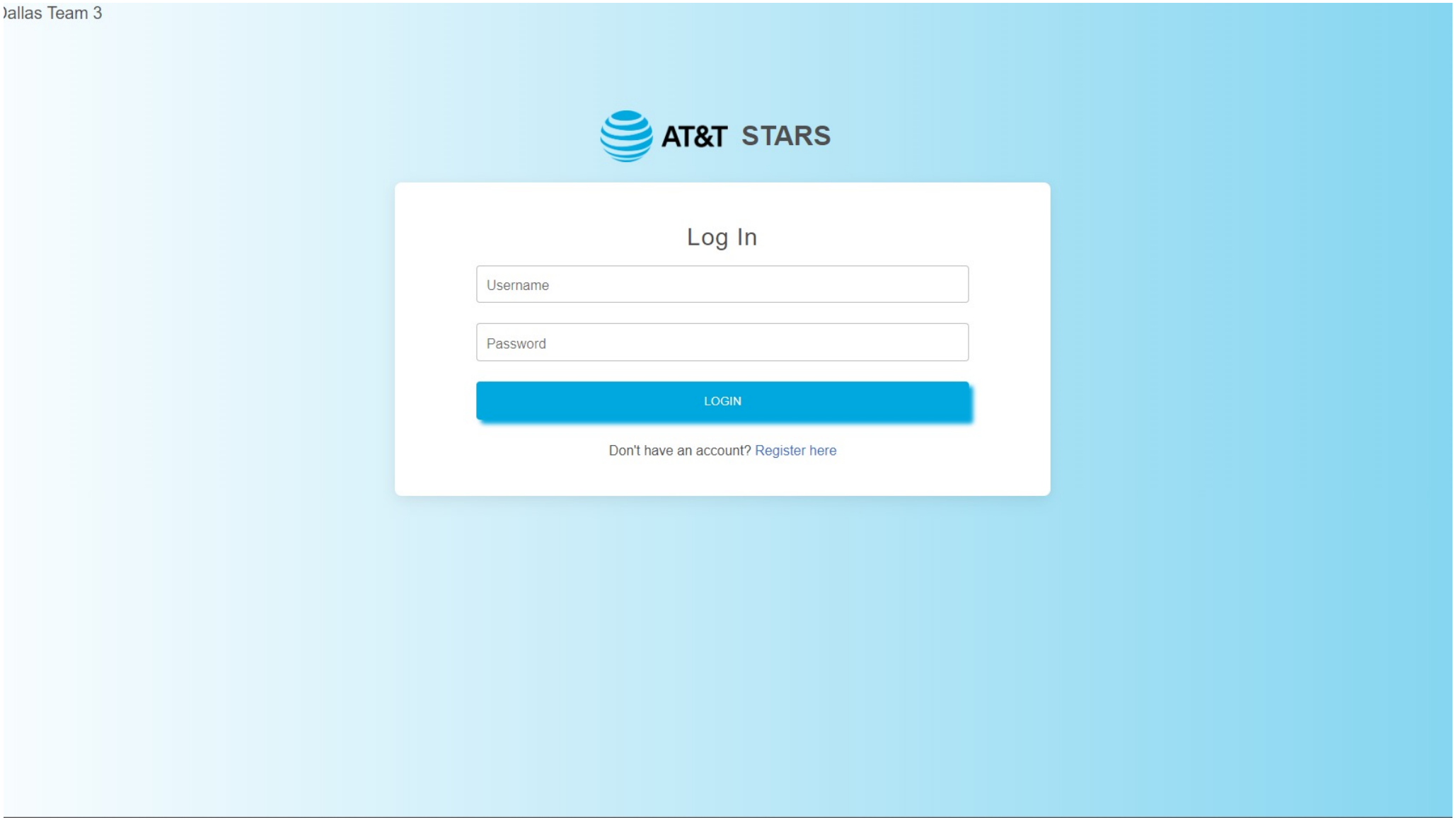
Product Demo

AT&T

Dallas Team 3



)allas Team 3


AT&T STARS
Log In
Username
Password
LOGIN
Don't have an account? Register here

Created by Dallas Team 3

AT&T STARS

PROFILE LOGOUT

Dispatcher Page

Daniel Harrel

▼ Upcoming Patients

- Stephanie Smith
- Patricia Rogers
- Karen Sloan
- Nathan Velazquez
- David Harris

▶ Archive Patients

Patient Information:

Patient ID

10650

Patient Name

Daniel Harrel

Patient Progress:

Patient Information Collected

Possible Symptoms/Things to Look For

Symptoms: trauma/seizure/abdominal_pain
Recommended Treatments: Stabilize the patient, control bleeding, immobilize fractures
Recommended Equipment: Tourniquets, bandages, splints, cervical collar

Hospital ID

91

UPDATE PATIENT DISCHARGE PATIENT

Created by Dallas Team 3

AT&T STARS

PROFILE LOGOUT

EMT Page

Daniel Harrel

▼ Upcoming Patients

- Stephanie Smith
- Patricia Rogers
- Karen Sloan
- Nathan Velazquez
- David Harris

▶ Archive Patients

Patient Information:

Patient ID

10650

Patient Name

Daniel Harrel

Triage Level

2.280588937

Patient Progress:

Patient Information Collected | EMS on Scene | Patient on Route to Hospital

Notes

Notes From Dispatcher:
Symptoms: trauma/seizure/abdominal_pain
Recommended Treatments: Stabilize the patient, control bleeding, immobilize fractures
Recommended Equipment: Tourniquets, bandages, splints, cervical collar

Hospital

91

ROUTE TO HOSPITAL DISCHARGE PATIENT

Created by Dallas Team 3

AT&T STARS

PROFILE LOGOUT

Hospital Page

Daniel Harrel

▼ Upcoming Patients

- Stephanie Smith
- Patricia Rogers
- Karen Sloan
- Nathan Velazquez
- David Harris

▶ Archive Patients

Patient Information:

Patient ID

10650

Patient Name

Daniel Harrel

Triage Level

2.280588937

Patient Progress:

Patient Information Collected | EMS on Scene | Patient on Route to Hospital | Patient at Hospital

Symptoms/Things to Note

Predicted Injury Type: trauma
Possible Symptoms: trauma/seizure/abdominal_pain

Doctor

Jason Kim

Room

7

DISCHARGE PATIENT

Benefits and Impact for AT&T

- More efficient and standardized approach to dispatching
- Reduces stress for personnel and minimizes life-threatening mistakes
- Enhances FirstNet's value and competitiveness
- Generate additional revenue streams
- Establish AT&T as an industry leader in the emerging field of AI integration for emergency response

Next Steps and Future Enhancements

- Integrate with FirstNet's reliable network
    - Prioritize Data Transmission
    - Enhance Interoperability
    - Leverage advanced communication technologies
- Enhance AI-driven solution with real-time video and location tracking
- Cross-Platform Applications

Challenges

- Privacy/Data Security
- Data Quality and Availability
- Integration with Existing Systems
- Algorithmic Bias

AT&T

Thank You!

Q&A

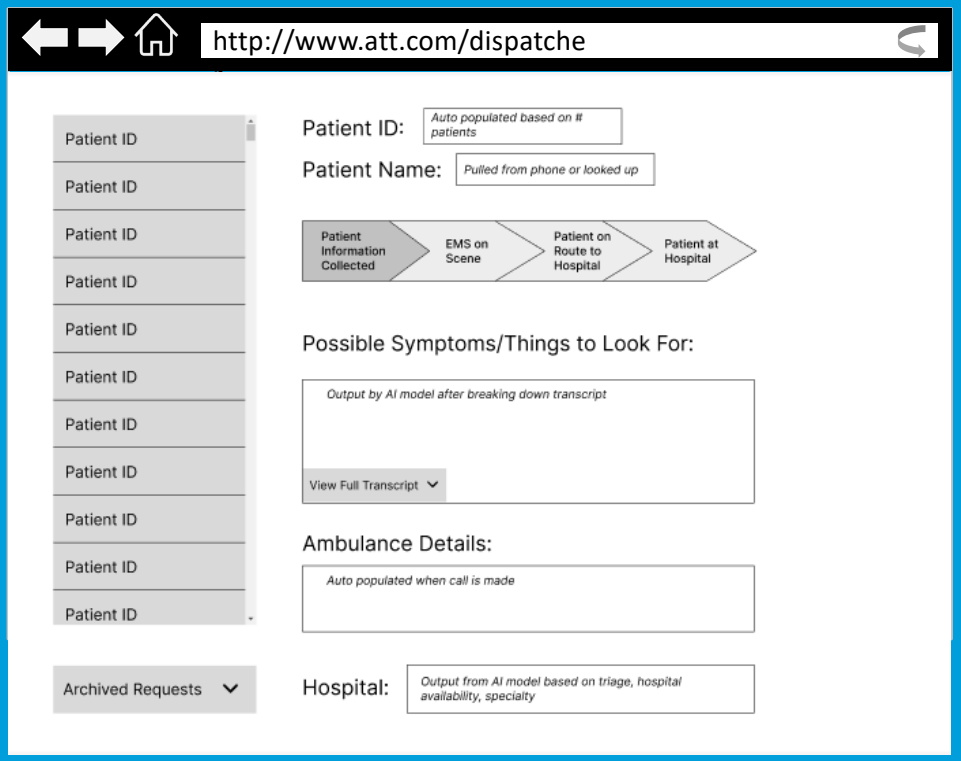
For further information reach out to

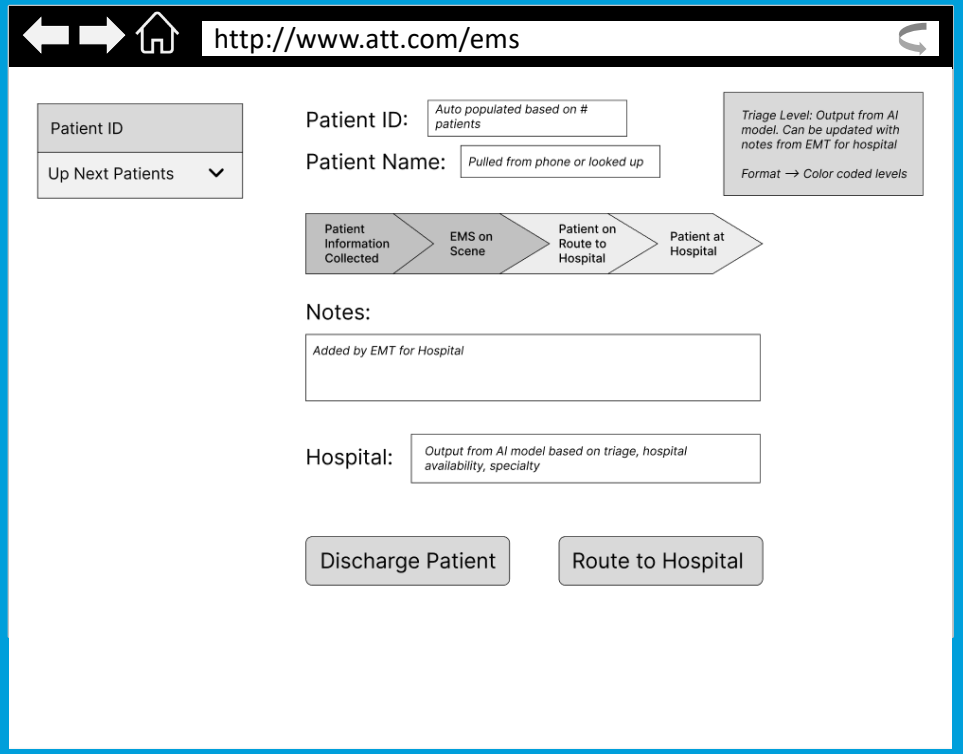
sn2186@att.com or *tf3894@att.com*

Appendix

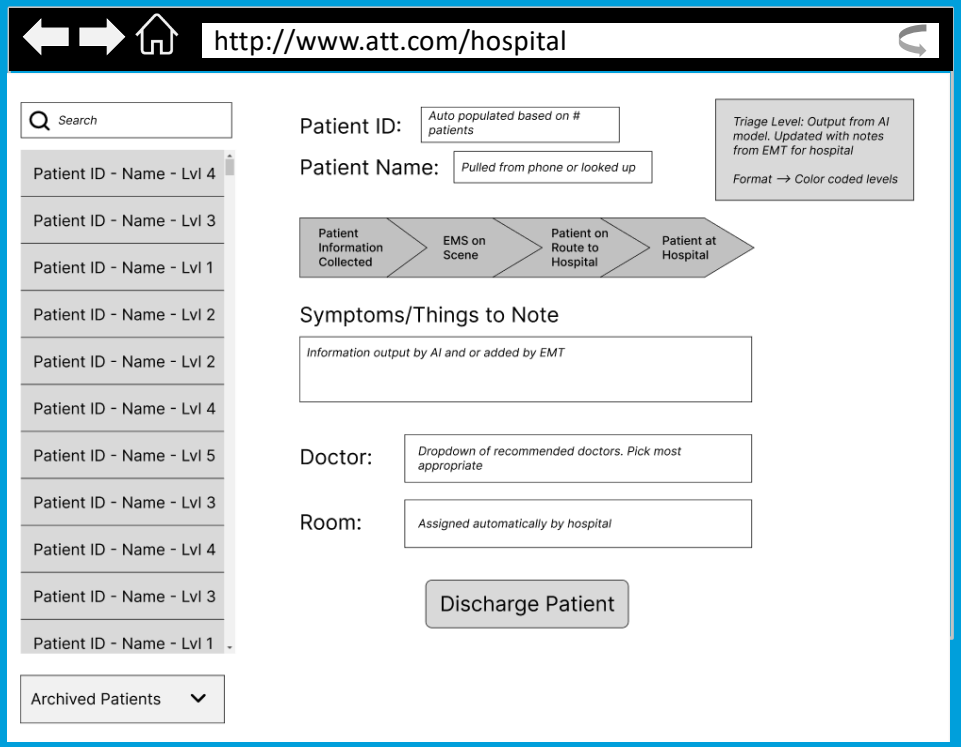
- Low Fidelity Prototypes

Low Fidelity Prototypes





Low Fidelity Prototypes



- All three dashboards have the same base design
- There are key features for each of the three roles
- Key is to make it as user friendly as possible