Demo Date: 20/11/2020

AZRO #Help #Heal #Healthcare

Virtual Assistant With Disease Detection

By-

Harsh Gupta
ENG17CS0084
9149328351
Harsh22gupta7@gmail.com
Computer Science and Engineering
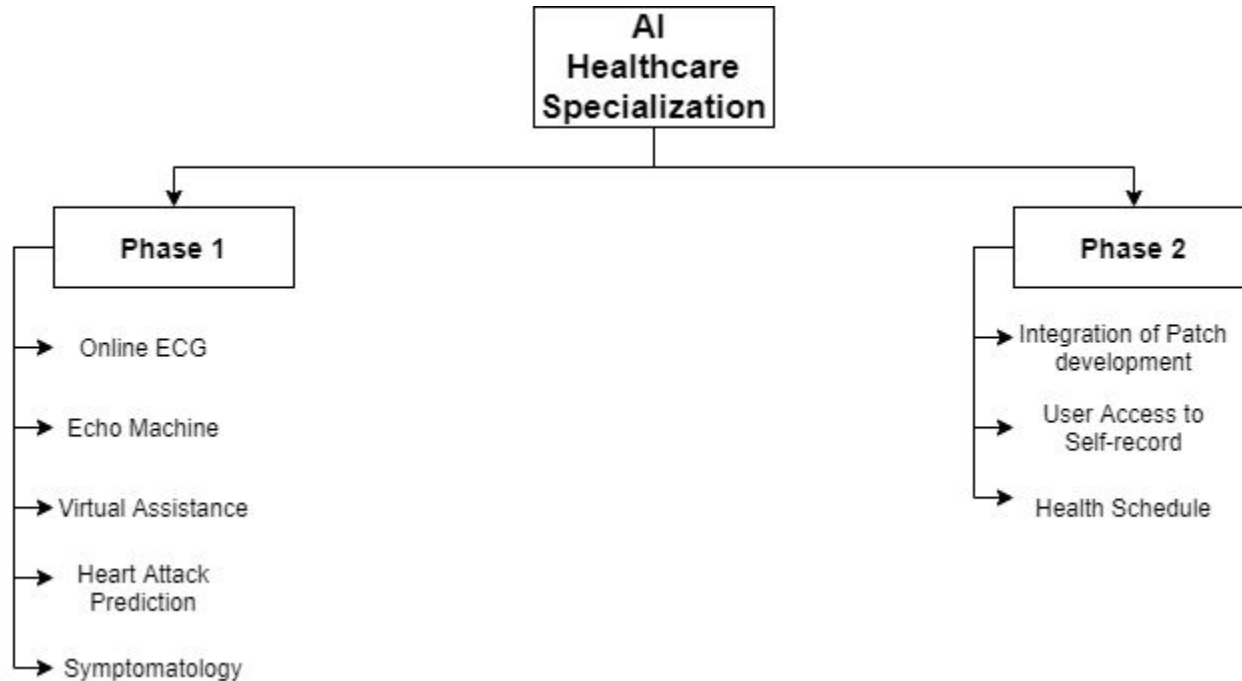**Dayananda Sagar University**
Bangalore, Karnataka
https://www.linkedin.com/in/harsh-gupta-46836b173/

Mentor-

Mr. Rajat Duggal
Email: rajat.duggal@nokia.com

Harsh Gupta

Problem Statement

A Virtual Assistant that uses Disease Detection to solve the medical trauma that requires immediate attention for routine assistance provided by humans in hospital for Efficiently Diagnose, Change Management, and Effective Communication. Not only it is time-efficient, but a personalized track of records is maintained and human error is eliminated to ensure smooth service for the patient.

Harsh Gupta

AI Healthcare Specialization

Harsh Gupta

AI : Healthcare's New Nervous System

Technology designed to mimic the human cognitive processes.

AI MARKET PROJECTIONS

The global AI market is projected to grow from **$21.46 billion** in **2018** to **$190.61 billion** by **2025**.

The AI healthcare market is projected to grow from **$667.1 million** in **2016** to **$7,988.8 million** in **2022**.

Deep learning utilizes neural networks with multiple layers which can analyze large volumes of complex data.

HEALTH AI MARKET SIZE 2014-2021

Acquisitions of AI startups are rapidly increasing while the health AI market is set to register an explosive CAGR of 40% through 2021

$600M $6.6B

11x

2014   2021

Harsh Gupta
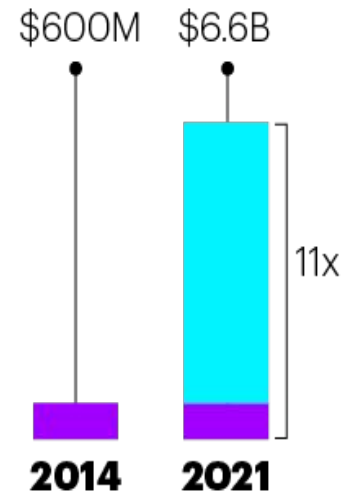
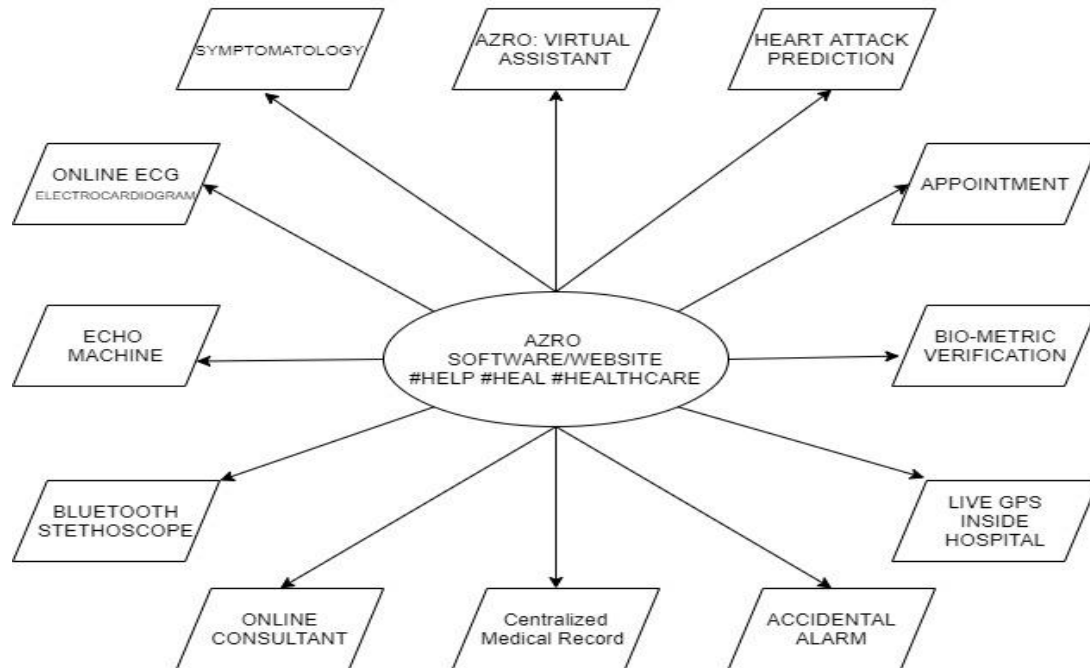# Improvement in Healthcare Using AI

1 Patient-oriented AI

2 Clinician-oriented AI

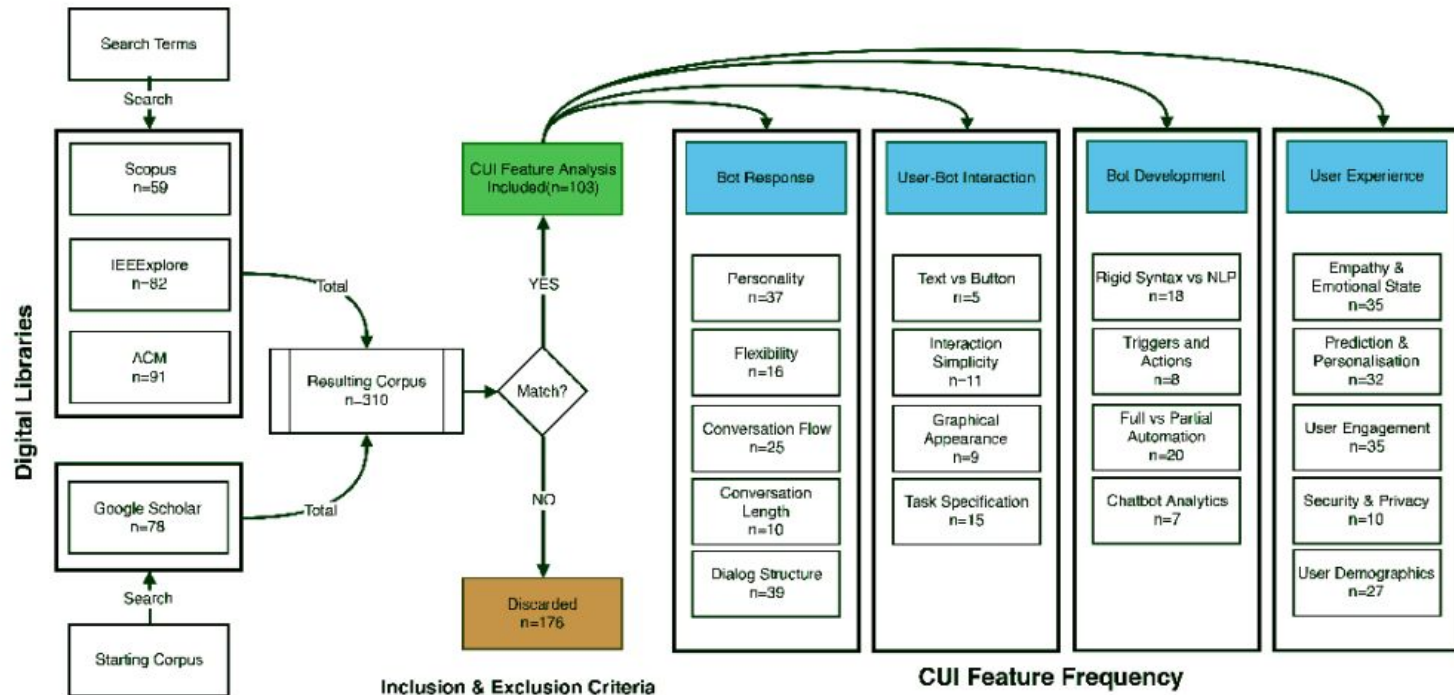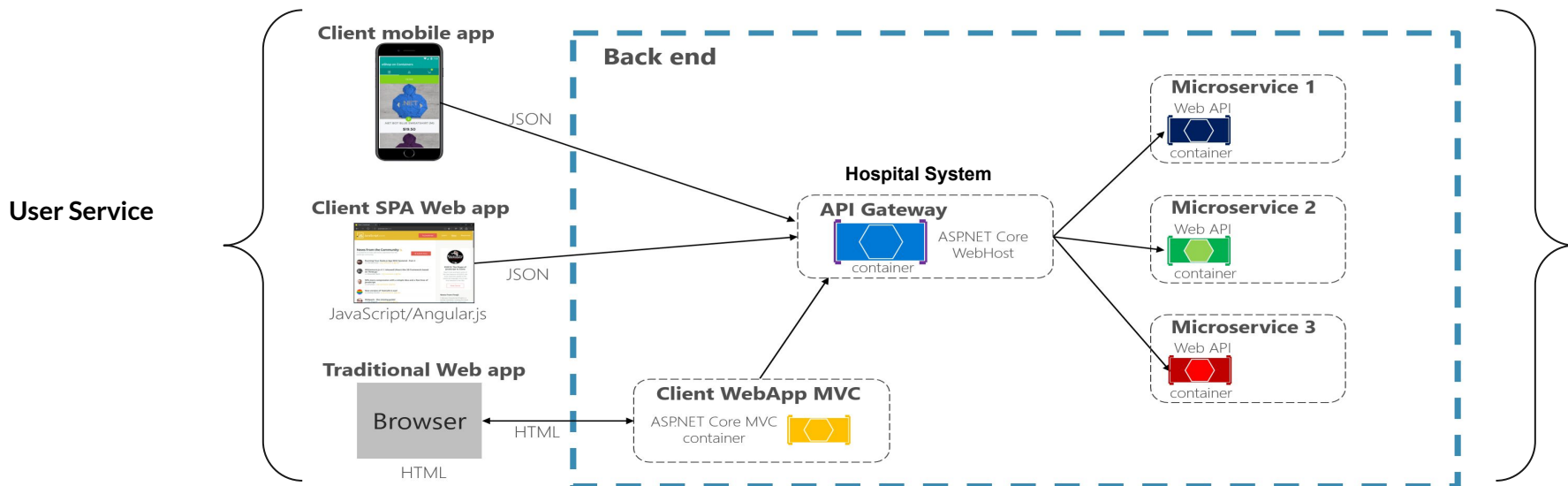3 Administrative and operational-oriented AI

Website

SOFTWARE INTEGRATING PARTS

SYMPTOMATOLOGY
AZRO: VIRTUAL ASSISTANT
HEART ATTACK PREDICTION
ONLINE ECG ELECTROCARDIOGRAM
APPOINTMENT
ECHO MACHINE
AZRO SOFTWARE/WEBSITE #HELP #HEAL #HEALTHCARE
BIO-METRIC VERIFICATION
BLUETOOTH STETHOSCOPE
LIVE GPS INSIDE HOSPITAL
ONLINE CONSULTANT
Centralized Medical Record
ACCIDENTAL ALARM

Data Analysis

Software Development

User Service

Client mobile app

Client SPA Web app

JavaScript/Angular.js

Traditional Web app

Browser

HTML

JSON

JSON

HTML

Back end

Client WebApp MVC

ASPNET Core MVC
container

Hospital System

API Gateway

ASPNET Core
WebHost

container

Microservice 1

Web API

container

Microservice 2

Web API

container

Microservice 3

Web API

container

Harsh Gupta

Processing Loop

Symptomatology done for patient heart rate, glucose level, and other health indicators over time.

Central monitoring system notifies patient to visit a provider.

Provider examines patient and dictates a visit note.

Data from device is synched up with central monitoring system.

Patient checks in at the biometric kiosk at the provider's office.

NLP and ML translate text from dictated notes into codified information in the patient's electronic medical records.
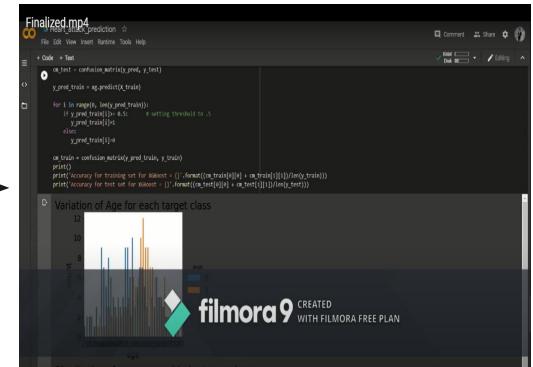
Harsh Gupta

Flow to Disease Detection
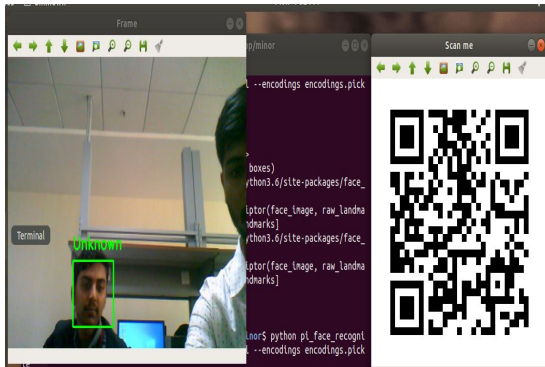
AI Facial Recognition using OpenCV and Python
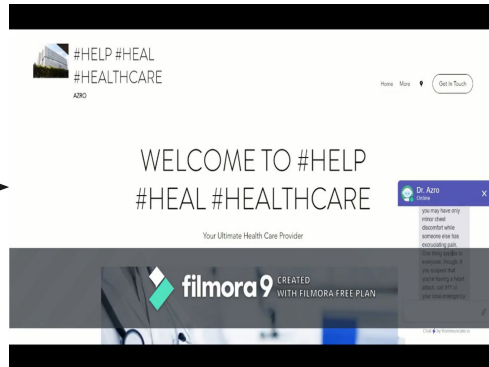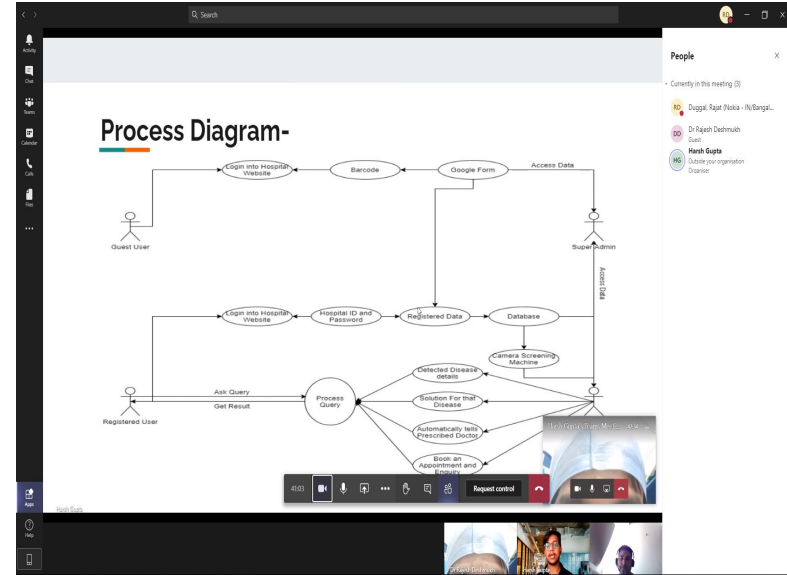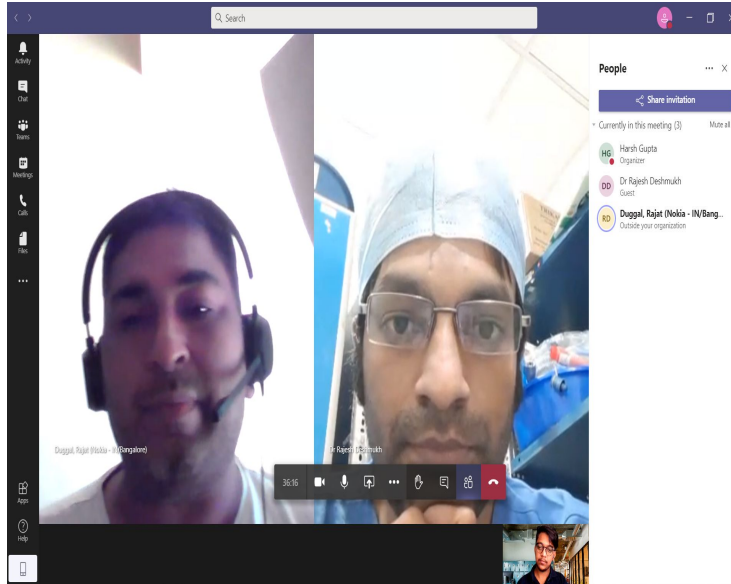

Website using Java & .Net

Prediction using Python with Machine Learning and Data Science Tool

Snapshots

Screenshots with the doctor that has been accepted/certified as the need of this project for the corporate world.

Future of AI in Healthcare

- **We have provided optimal solution and fulfilled the customer wishes.**

- **We are working on AI Automation that help us to eliminate errors while entering into the Hospitals with the smooth services.**

- **Advance Data Compression Technology using Artificial Intelligence.**

- **We are providing the Centralised Medical Records.**

- **Providing End-to-End Encryption using Tablet/Notebook with Emerging AI Healthcare Software.**

For patients
- More choice and convenience
- Faster, easier appointment scheduling
- Convenient bill paying
- Less time spent filling out or updating forms

For hospitals
- Reduced costs
- Reduced wait times
- Fewer errors
- Easier payment options
- Increased patient satisfaction

Harsh Gupta

Video Demonstration

THANK YOU!

Harsh Gupta