Problem-Solution Fit canvas

Project Title : Classification of Arrhythmia by Using Deep Learning with 2-D ECG Spectral Image Representation

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Define CS, fit into CL

1. CUSTOMER SEGMENT(S) — CS

An IT Professional who have arrhythmia but he has no time to go to the hospital for checkup.

6. CUSTOMER LIMITATIONS EG. BUDGET, DEVICES — CL

Arrhythmia identification because of several risk factors such as diabetes, age more than 60, high blood pressure, high cholosterol, abnormal heart rate, high alcoholic.

5. AVAILABLE SOLUTIONS PROS & CONS — AS

Healthy life cycle such as healthy food habit(low-fat, low-sugar, low-spicy), following regular exercises, following good sleep cycle & stop drinking alcohol.

Explore AS, differentiate

Focus on PR, tap into BE, understand RC

2. PROBLEMS / PAINS + ITS FREQUENCY — PR

Find the type of arrhythmia and help him to get rid from the disease

9. PROBLEM ROOT / CAUSE — RC

Risk factors include a poor diet, lack of exercise, obesity, alcohol intake. Healthy lifestyle choices can help lower the risk of arrhythmia.

7. BEHAVIOR + ITS INTENSITY — BE

Protect your self from type - 2 diabetes, joint pain, ashthma and number of other chronic diseases and conditions.

Focus on PR, tap into BE, understand RC

Identify strong TR & EM

3. TRIGGERS TO ACT — TR

Symptoms : fluttering in the chest, racing heartbeat (tachycardia), slow heartbeat (bradycardia), anxiety, fatigue, lightheadedness or dizziness, sweating, fainting (syncope) or near fainting.

4. EMOTIONS BEFORE / AFTER — EM

Before : Pesimistic feeling such as anger , stress, hostility, depression, anxiety causes coronary heart diseases.
After : Short term feelings like sadness and depression mood for the first few weeks.

10. YOUR SOLUTION — SL

Eating fatty fish and other foods with omega-3 fatty acids can lower the risk for heart disease and also help prevent arrhythmias.
Arrhythmias and other heart conditions are associated with oxidant stress and inflammation. Antioxidants like vitamin C and vitamin E appear to be effective in reducing these.
Magnesium and potassium help keep your heart stable.

8. CHANNELS of BEHAVIOR — CH

ONLINE

Customer will find their arrhythmia contion via online instead of going to the hospitals.

OFFLINE

Customer has to go to the hospital for collecting their ECG Spectral images.

Extract online & offline CH of BE