**Project Title:** AI-based localization and classification of skin disease with erythema **Project Design Phase-I** - **Solution Fit Team ID:** PNT2022TMID07139

**Focus on J&P, tap into BE, understand RC**

**Explore AS, differentiate**

**Deﬁne CS, ﬁt into CC**

**AS**

**3. AVAILABLE SOLUTIONS**

Accuracy, budget, Network connection, Available devices.

**PC**

**2. PATIENT CONSTRAINTS**

**PS**

1. **PATIENT SEGMENT(S)**

Developed model is under training

**Explore AS, differentiate**

**Define PS, fit into PC**

Used for the prevention and

early detection of skin cancer, psoriasis.

The model analyses the image and

detect whether the person is having

skin disease or not.

**BE**

**6. BEHAVIOUR**

The location of the disease that is present in an image and improved performance by training a CNN model to focus on particular subsections of the images.

**RC**

**5. PROBLEM ROOT CAUSE**

Skin disease can appear in virtually any part of body and there is a lack of data required to form an association between the probability of a skin disease based on the body part.

**J&P**

**4. JOBS-TO-BE-DONE / PROBLEMS**

The accuracy may have decreased due to false positives caused by areas such as lips, which have similar characteristics to erythema.

**Focus on J&P, tap into BE, understand RC**

**Focus on J&P, tap into BE, understand RC**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Identify strong TR & EM** | **7. TRIGGERS TR**   * Sunlight * Stress * Heat * Alcohol, especially red wine * Spicy foods * Some skin and hair care products * Some makeup * Wind and cold * Some medicines * Exercise | **9. YOUR SOLUTION SL**  Two-phase analysis model. The original image primarily enters a preprocessing stage, where normalization and decomposition occur. Afterwards, the first step is segmentation, where cluster of abnormal skin are segmented and cropped. The second step is classification, where each cluster is classified into its corresponding class. Developed Model is Still under training. | **10.CHANNELS of BEHAVIOUR CH**   * 1. **ONLINE** * **No referral needed** * **Save Money & Time** * **Instant response** * **Confidential advice** |  |
| **8. EMOTIONS: BEFORE / AFTER EM**  • Major [depression](https://www.psychologytoday.com/us/basics/depression) is one of the main results of chronic skin disorders. • [Suicidal](https://www.psychologytoday.com/us/basics/suicide) thoughts are another consequence. • Other psychosocial side effects of skin conditions are social withdrawal, [anger](https://www.psychologytoday.com/us/basics/anger), frustration, and lack of [confidence](https://www.psychologytoday.com/us/basics/confidence). • 26% of people with moderate to severe psoriasis have been forced to change or discontinue their normal daily activities. • Adults with acne face higher rates of unemployment than the general population. • Kids with skin disorders suffer, too. Two out of five of these children have some psychosocial impairment. |