Brainstorm & Idea Prioritization Template

Date: 25-06-2025

Team ID: LTVIP2025TMID35738

Project Name: Pattern Sense: Classifying Fabric Patterns Using Deep Learning

Step-1: Team Gathering, Collaboration and Select the Problem Statement

Pattern Sense: Classifying Fabric Patterns using Deep Learning is a project designed to automate the proc
The system can be used in various industries such as fashion, textiles, and interior design to streamline pa

Step-2: Brainstorm, Idea Listing and Grouping

- Collect a dataset of various fabric patterns (e.g., striped, floral, geometric, abstract, etc.)
- Preprocess images: normalize, augment, and label
- Build a convolutional neural network (CNN) for image classification
- Use transfer learning (e.g., ResNet, EfficientNet) to improve accuracy
- Train and evaluate on different pattern types and industries
- Integrate with a web app or mobile interface for real-time fabric recognition
- Explore usage for quality inspection and textile sorting in factories

Step-3: Idea Prioritization

1. Use pre-trained CNN models for high-accuracy classification (High impact, High feasibility)
2. Build custom dataset of labeled fabric patterns (High impact, Medium feasibility)
3. Develop user interface for uploading fabric images (Medium impact, High feasibility)
4. Apply the system in real-world settings like textile factories (High impact, Low feasibility initially)