



# Facial Expression Recognition in Real-Time

Determining Mood from Facial Expressions

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# Aims and Objectives

- 01** Build, train and evaluate ConvNet/ResNet model
- 02** Compare performance with existing techniques
- 03** Develop an app with real-time facial expression recognition





# Summary of Related Work

**01** Image Pre-processing

**02** Feature Extraction

**03** Image Classification

# Project Specification

- Real-time face detection
- Real-time emotion classification
- Performance comparison
- Happiness, sadness, anger, disgust, surprise, neutral.



# Approach to Development

**01 Methodology**

**02 Design**

**03 Implementation and  
Technology Proposals**



# Testing and Evaluation plans

- **Accuracy**
- **K-fold cross validation**
- **Confusion Metric**
- **Usability**
- **Functionality**
- **Performance**
- **Edge Cases**



# Progress to date

**01** Data Collection and Gardening

JAFFE, CK/+, MUG, TFEID, Yale, AR, MMI, KDEF, MUG

**02** Build, train ResNet/ConvNet models

resnet34, resnet50, convnet

**03** Prototype Demo



THANK YOU