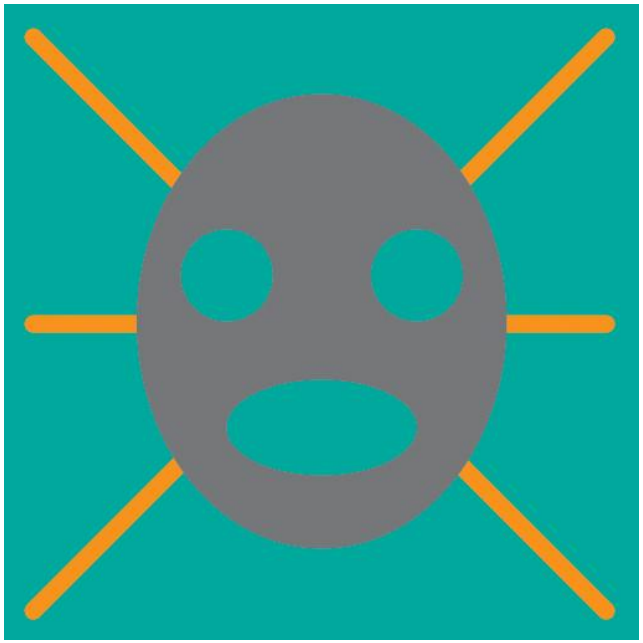
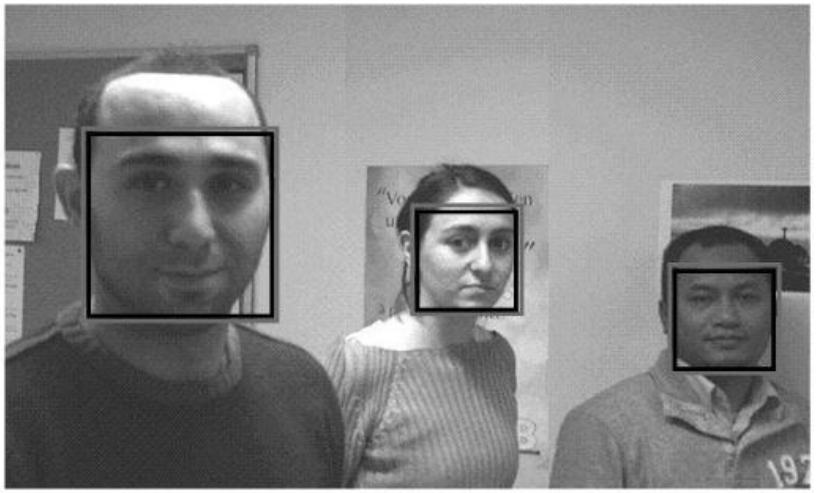
Face Field



Adelheid Mers

Robert Woodley

Face Detection

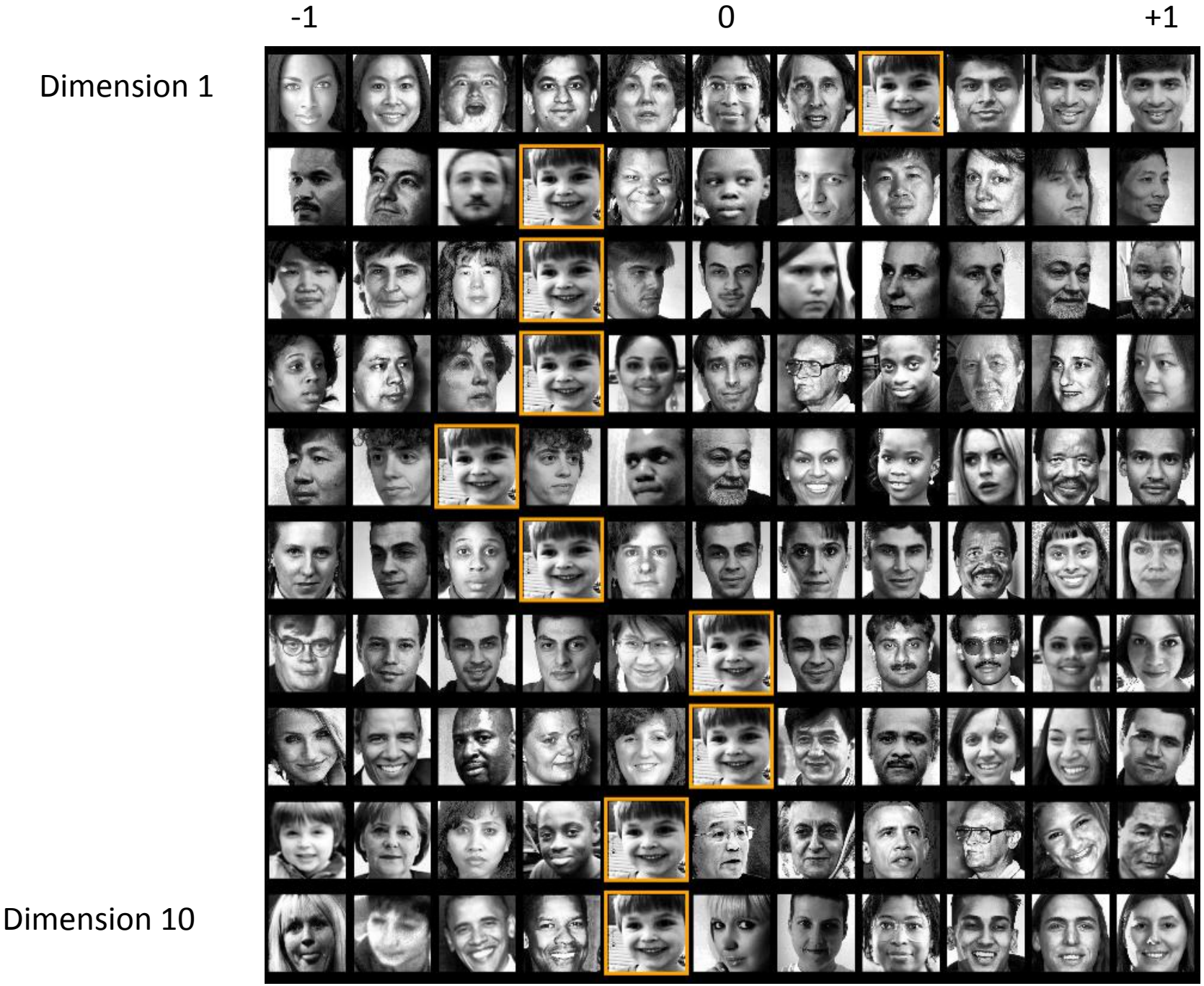


Face Recognition

Face Field uses the EigenFaces methodology for face recognition.

- The algorithm is analyzing how pixels are distributed.
- The algorithm classifies the images in different ways that are called dimensions.
- Some examples of dimensions in face recognition are: an analysis of areas of facial hair, pose, position of eyes, cheekbones, nose and mouth.
- You can compute an average face which is neutral across all the faces in a database.
- One can build an anti-face by taking the opposite setting in each dimension.
- The algorithm uses this classification system to find similar faces and thereby to perform face recognition.
- Since the algorithm is actually analyzing the picture, not the face, it has trouble doing face recognition if lighting and pose are not consistent.

A Face


-1
0
+1
Dimension 1
Dimension 10

More Hair

Dimension 3

More Forehead

Highlighted Cheekbones

Dimension 10

Not so highlighted

Left Facing

Dimension 2

Right Facing

The Average Face

Note: our database is not as diverse as it should be. As it grows this will change.

Dimension 1

Dimension 10

Anti Face

Face:

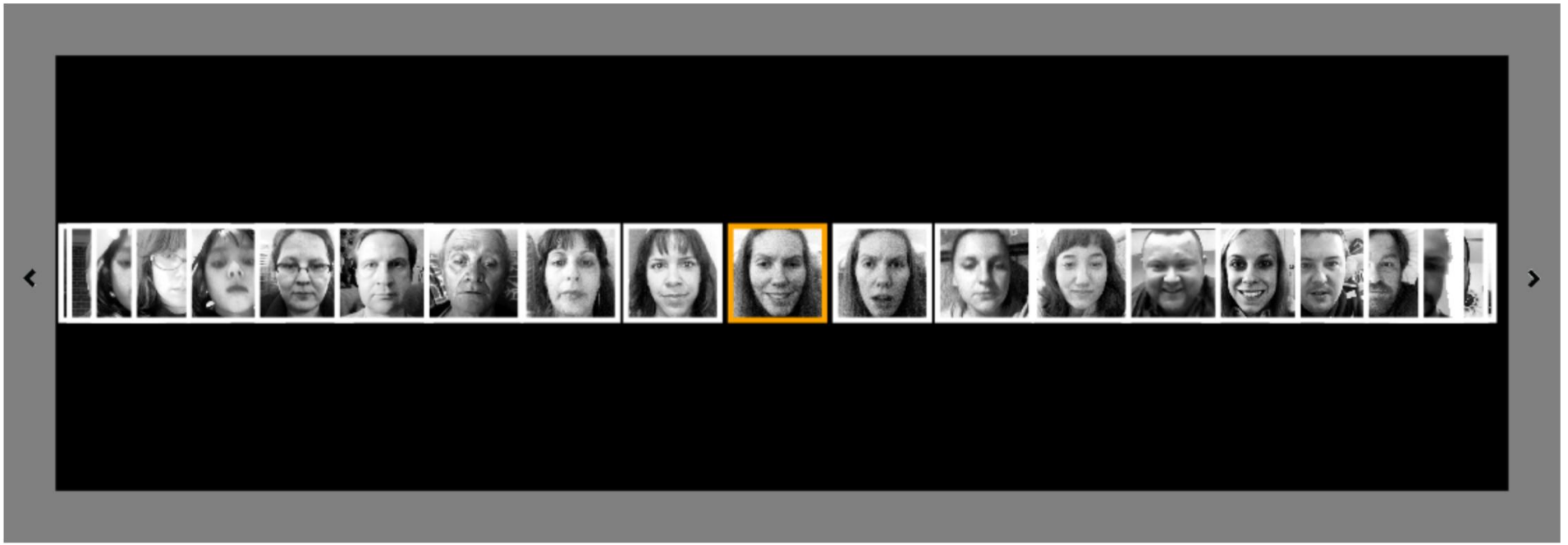
Dimension 1

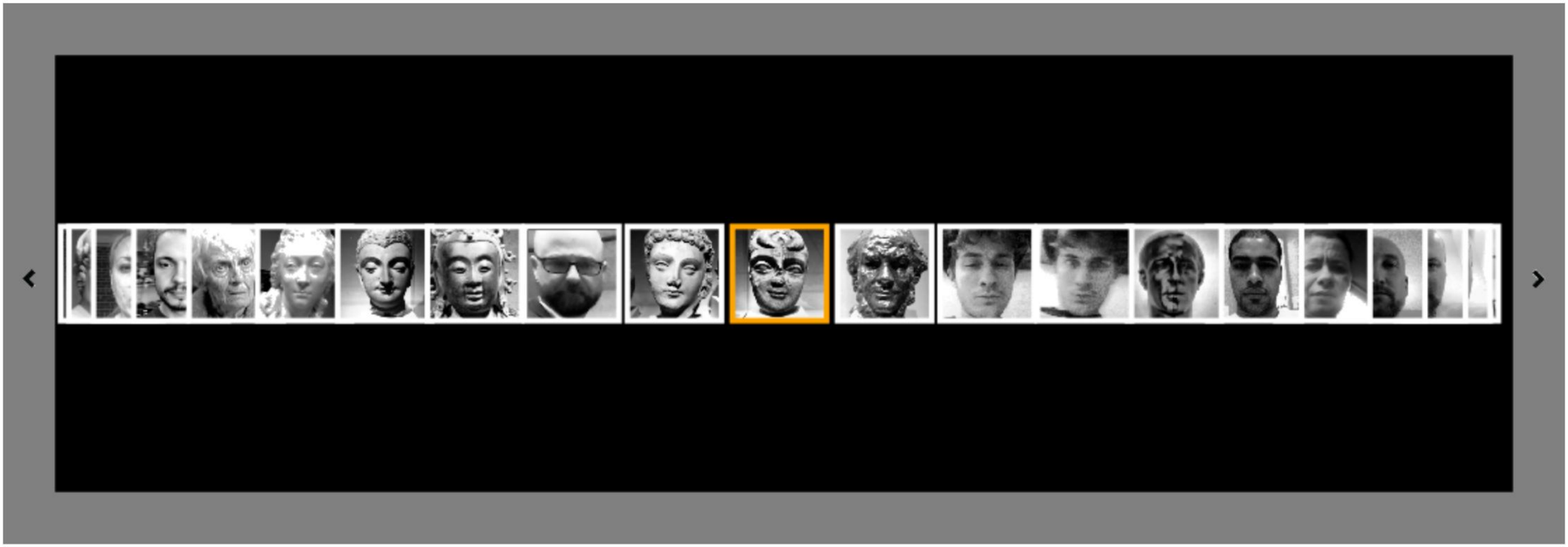
Dimension 5

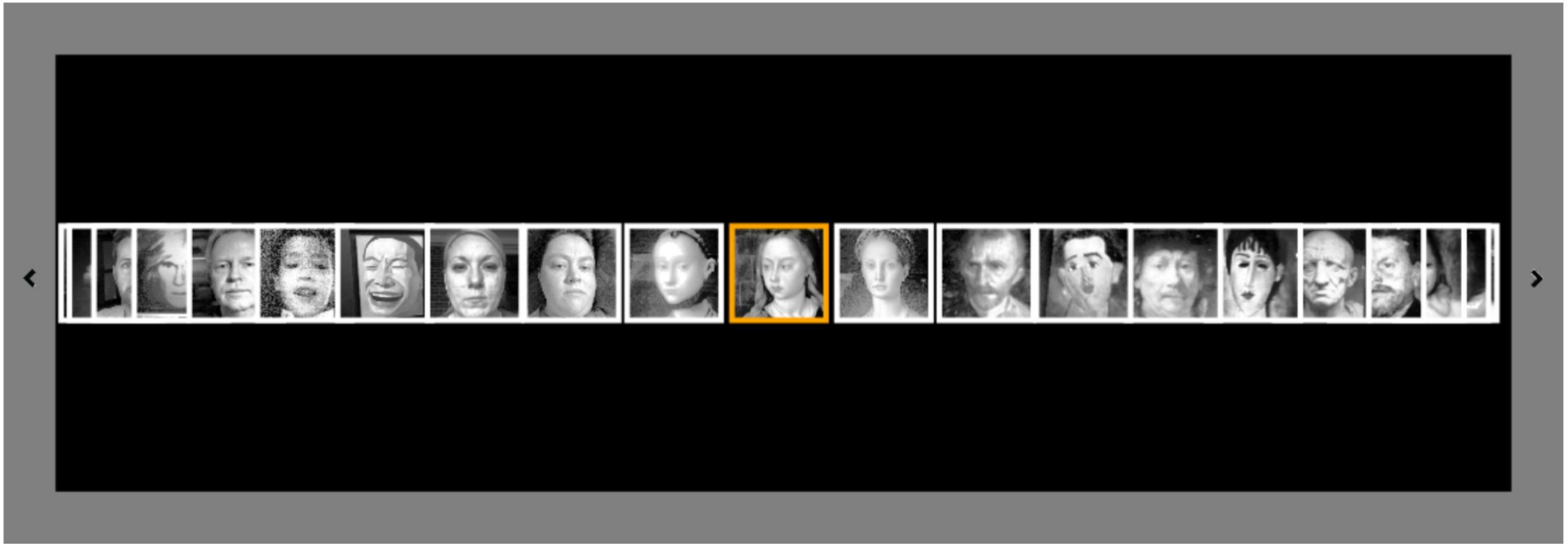
Anti-Face:

Dimension 1

Dimension 5







Anti Face

View More By This Developer

By Robert Woodley

Open iTunes to buy and download apps.

View In iTunes

This app is designed for both iPhone and iPad

Free

Category: Education
Updated: Oct 04, 2013
Version: 1.1
Size: 4.6 MB
Language: English
Seller: Robert Woodley
© 2013 Robert Woodley
Rated 4+

Compatibility: Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.

Customer Ratings

Description

View your anti-face. This is a mathematical construct that analyzes your face in 60 different dimensions and then takes the opposite setting of each of these 60 settings. The result is surprising and thought-provoking.

Robert Woodley Web Site ▸ Anti Face Support ▸

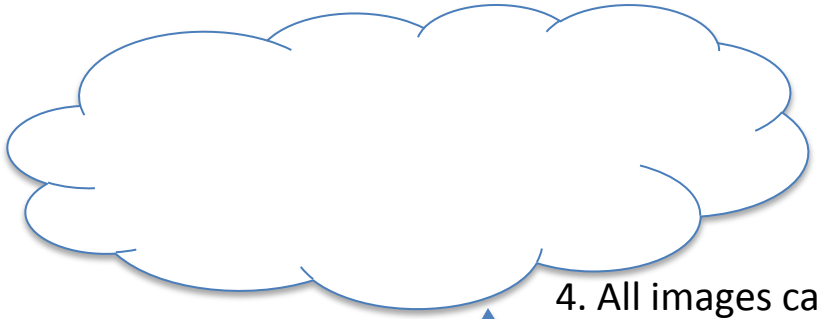
What's New in Version 1.1

Additional screenshots.

Screenshots

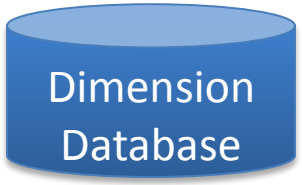
iPhone | iPad

Standalone Architecture



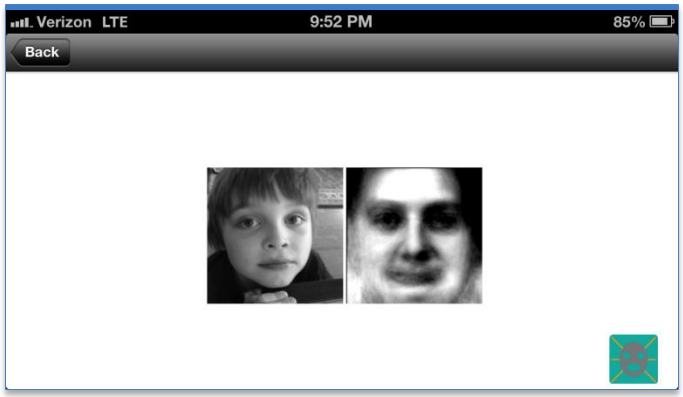
4. All images cached

2. Face sent to server



3. Subspace coordinates saved to DB

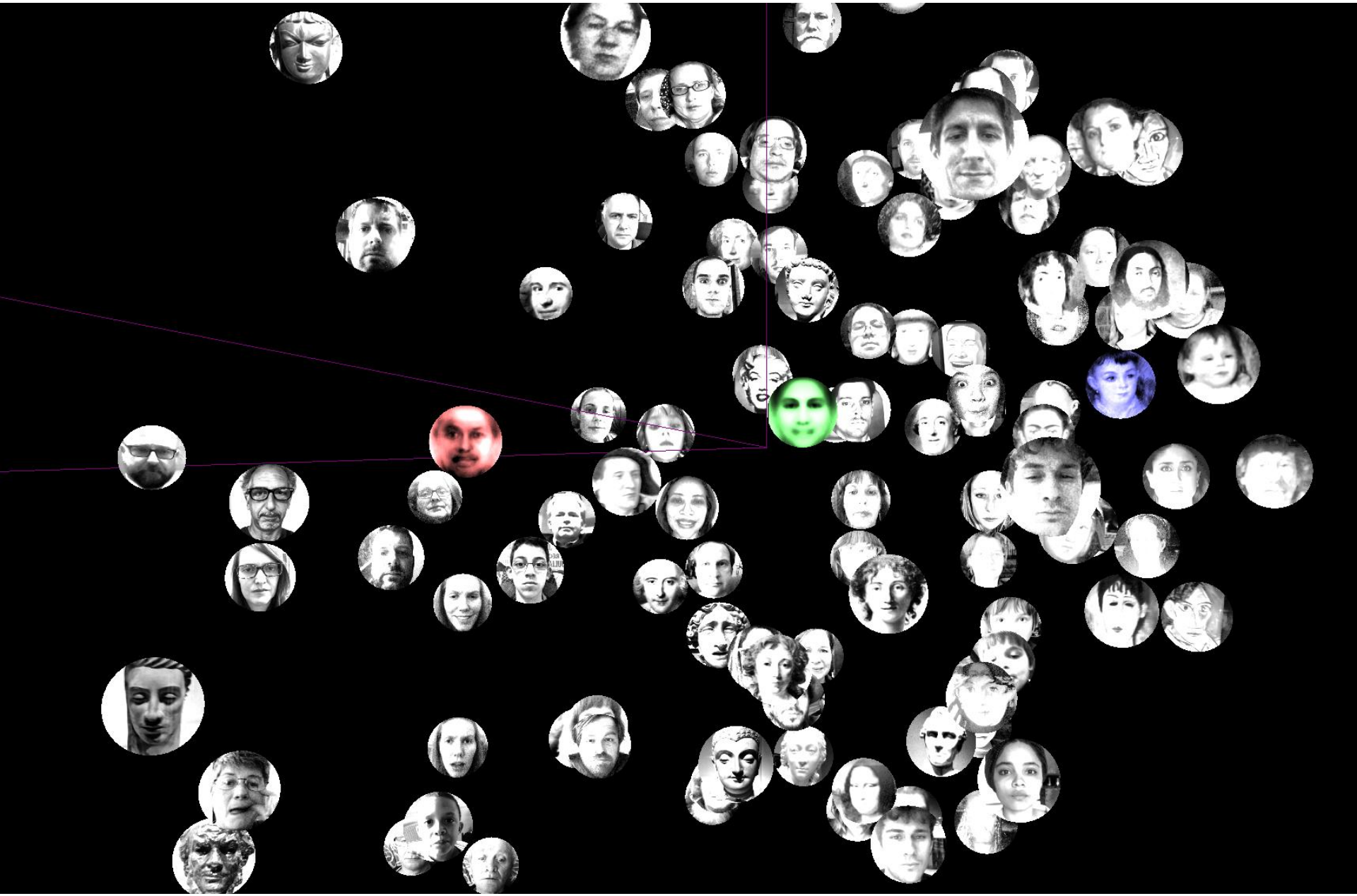
5. Browse results on phone or laptop



1. iPhone/iPad running Face Field App

This is all complete and running now.

Technology

Face Recognition and Detection is implemented via OpenCV. OpenCV (Open Source Computer Vision Library) is an open source computer vision and machine learning software library. OpenCV was built to provide a common infrastructure for computer vision applications and to accelerate the use of machine perception in the commercial products.

The server runs on .net and is hosted by AppHarbor. Amazon S3 and SQL Server are used for storage. The iPhone/iPad app runs on iOS of course. Source code control is via git/github.