

# Robust Facial Expression Recognition



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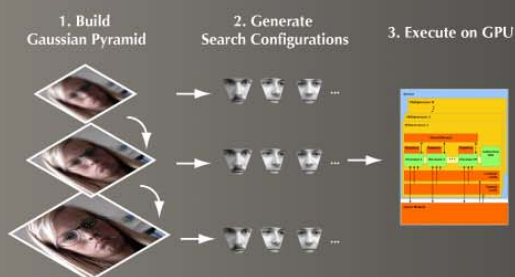
Lighting

## Motivation and Objectives

- Natural computer interfaces
- Automatic facial expression recognition
- Uncontrolled environments
- Need to improve robustness

## Framework

- Active Appearance Models (AAM)
- Good representation of the face
- However sensitive to initialization
- Explore initialization space with GPU

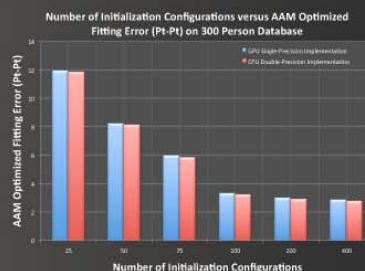


Glasses

## AAM Initialization



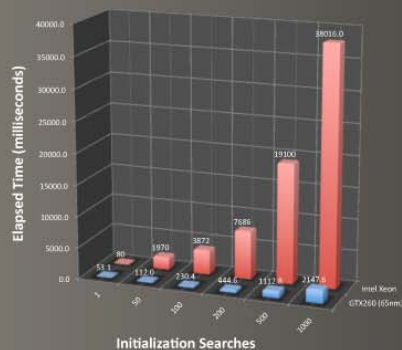
## Accuracy Comparison



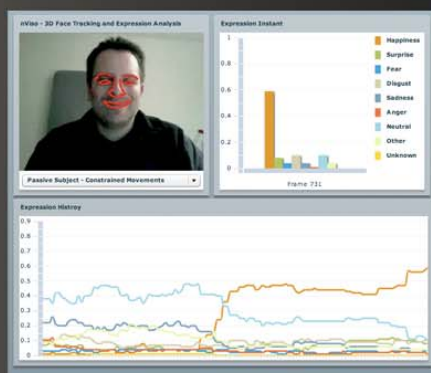
Occlusion

## Performance Results

- 20x speedup



## Live Application



Pose