

# Project Discussion and Recap

COMP 388-002/488-002 Biometrics

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Fall 2023



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# Today's attendance

**Please fill out the form**

<https://forms.gle/EDkpCCwwxGkzTkVo6>



# Assignments

## Assignment 1

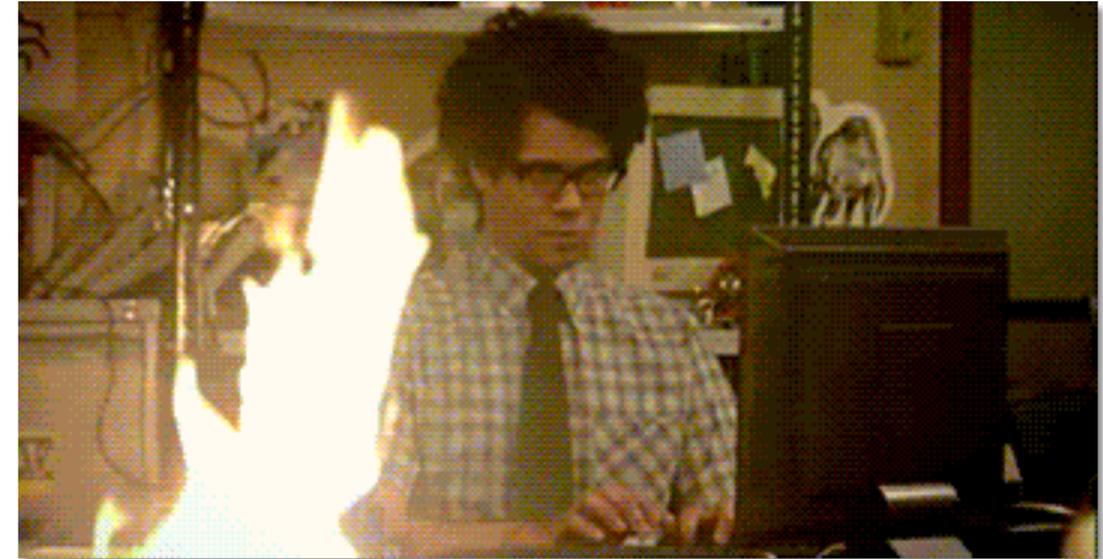
Metrics' implementation

Due today

## Assignment 2

Fingerprint recognition

Open today, due in 2 weeks



# Project

## Discussion

What is your topic?

Who are your partners?

How are you going to do it?

Please visit <https://bit.ly/3LIBj93>



# Recap, midterm exam

## **Biometrics**

What is Biometrics (biometric recognition)?

What are the types of biometric recognition?

What is a biometric system?

What are the typical modules of a biometric system?

# Recap, midterm exam

## Utility

Why do we use Biometrics?

What are the pros and cons of using Biometrics?

Why do we use computers in Biometrics?

## Traits

What is a biometric trait?

What is not a biometric trait?

What should one consider when choosing traits?

# Recap, midterm exam

## **Ethical aspects**

Misuse, abuse, and bias

Function creep

Covert deployment

## **Errors and attacks**

Denial of access, intrusion, and repudiation

Impersonation, obfuscation, spoofing, hill climbing, and master keys

Closed-set versus open-set

# Recap, midterm exam

## Metrics

How do we compare two or more systems?

d-prime and AUC

Genuine versus impostor pairs

Similarity versus distance-based scores

# Recap, midterm exam

## **Fingerprints**

Epigenetic traits

Ridges and valleys

Level-1, level-2 and level-3 features

*Examples and utility*

Types of sensors

*Capacitive (standard and active), optical, pressure, thermal, ultrasound, and touchless*

# What's Next?

## Midterm exam

In class on Wednesday

On paper

