

Assignment 2

Facial recognition, Password generation and cracking, Access Control

CHEN XI DIONG
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FIT2093 A2

Agenda

- Task 1a : Facial recognition testing
- Task 1b : Password Generation and Cracking
- Task 2a : Create users
- Task 2b : Readsecret
- Task 2c : Unauthenticated file modification

Task 1a : Facial Recognition

Results

With threshold = 0.95:

- FAR = 0.167
- FRR = 0

With threshold = 0.98:

- FAR = 0
- FRR = 0

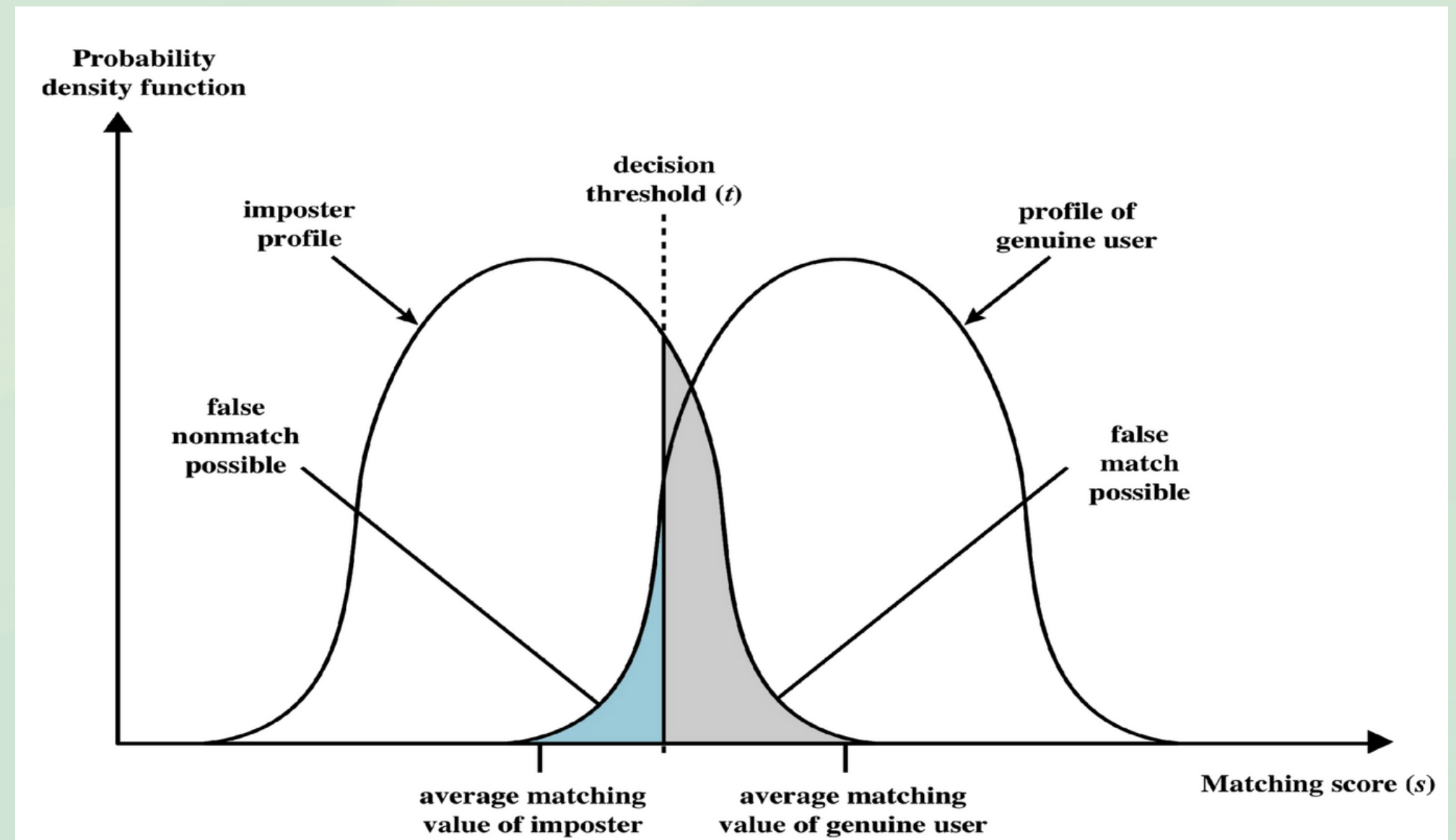


Figure: Graph of threshold, FAR and FRR
(FIT2093 Moodle Wk 6 Lecture Slides)

Task 1b : Passwords

Time taken (user time) for John the Ripper to crack passwords with:

- No salt with default no. of rounds = 9.206 seconds
- Salt with default no. of rounds = 10.369 seconds
- Salt with 1000 rounds = 2.064 seconds
- Salt with 50000 rounds = 1 minute 47.105 seconds

Time taken (user time) for creating passwords with:

- No salt with default no. of rounds = 0.006 seconds
- Salt with default no. of rounds = 0.005 seconds
- Salt with 50000 rounds = 0.028 seconds
- Salt with 200000 rounds = 0.144 seconds

Task 1b : Discussion

Time estimate for a brute force search through 200 Million passwords:

- **Without salting : minutes to hours**
- **With salting and salt exposed**
 - **For default number of rounds: hours to days**
 - **For 50000 rounds: months to years**
 - **For 200000 rounds: decades to centuries**