AuthentiKey:
Keyboard Biometrics

Who we are

Team: Not Our (Seg)Fault

Members: Alex Wein, Clara Frausto, Ashlynn Cardoso, William Bennett, Caitlin Scarberry

Mentors: Alec Harrell, Renato Untalan

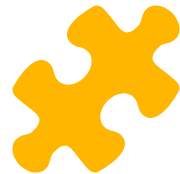# Problem Description

Current biometric based MFA is clumsy

Current MFA

- Multifactor Authentication is widely used

- Biometrics is one approach to MFA

- The current state of biometric based MFA is lacking

Problem Solution

Keyboards: ubiquitous and easy

Proposed Solution to MFA

Keyboard Biometrics are Lightweight

No need for extra device or interface

Keyboard Biometrics are Unique

No sacrifice is made in switching to keyboard based biometrics

It's Demo Time

System Description

Verification and Log-In Integration

Core Features & Functionality

User Training

Users sign up by typing a phrase multiple times

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User Validation

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User Updating

Users data can be updated to account for changing typing style

System Overview

User

KewlCatPhotos.biz

Authentikey Backend Server

Data Storage

System Security

- Secure communication channel (i.e. no replay attacks)

- Data storage is secure against attack

- API keys for clients

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Results & Conclusion

Overall effectiveness and project findings

Data Collection

- Public-facing form for data collection

- People typed a sentence four times to train

- Used automated testing script for statistics and validation
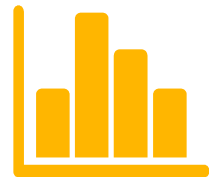
100+

Users Trained

96%

True Positive Rate

5%

False Positive Rate

In Conclusion

- Multifactor Authentication is widely used

- Current biometric solutions to MFA are a bit lacking

- AuthentiKey provides a robust and easy solution

- System Security is still maintained

Thanks!

Any questions?