Knuckle Input

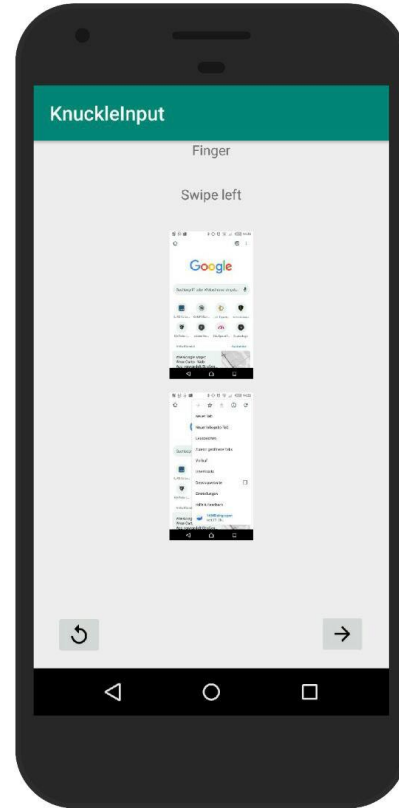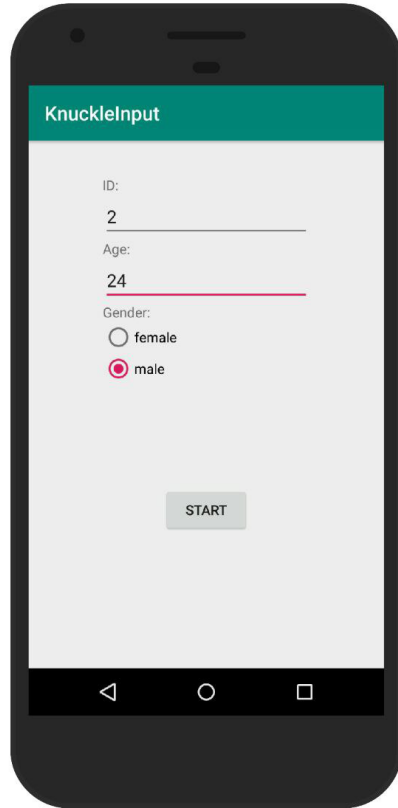Robin Schweigert, Simon Hagenmayer, Jan Leusmann

Fachpraktikum Interaktive Systeme: Machine Learning and Computer Vision for HCI | Stuttgart | 27.11.2018

Motivation

- Discriminate between Finger and Knuckle
- Discriminate between 10 Gestures

App structure

Data

- userID
- timestamp
- touch (bool)
- gestureID
- versionID
- inputMethod (finger/knuckle)
- actualData (bool)
- capacitiveImage (Matrix)

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Gestures

- 1. Press (1s)
- 2-5. swipe all directions
- 6-7. 2 Finger swipe
- 8. Circle
- 9-10. Arrowhead left right
- 11-12: "L" and mirrored
- 13. Check mark
- 14. „S"
- 15. Press and rotate

- "Right-click"
- Turn 3D object
- Next browser tab
- Open camera (or other app)
- Switch between apps
- Open flashlight
- Confirm input
- Screenshot
- Volume

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Todo

- Until Friday: Survey about gestures
- Until 9.12: Complete App
- Until Christmas: Conduct study

Questions

- Data acquisition to slow
- Hide images when user starts gesture?

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