

Department of Computer Science Institute for System Architecture, Chair for Computer Networks

Application Development for Mobile and Ubiquitous Computing

Mushroom recognition First Presentation

Adam Misiuda



- Application helps with recognizing type of mushroom.
- User can make a picture of a mushroom.
- If result has more than one type, all of them are being shown with their match probability.
- · Application shows detailed information about a mushroom.



symbian OS

Symbian OS - one of Nokia's mobile operating systems for mobile devices and smartphones,

with associated libraries, user interface, frameworks and reference implementations of common tools.





Artificial neural network

(ANN) - a mathematical model or computational model that is inspired by the structure and/or functional aspects of biological neural networks. A neural network consists of an

an interconnected group of artificial neurons, and it processes information using a connectionist approach to computation.





User takes a photo of a

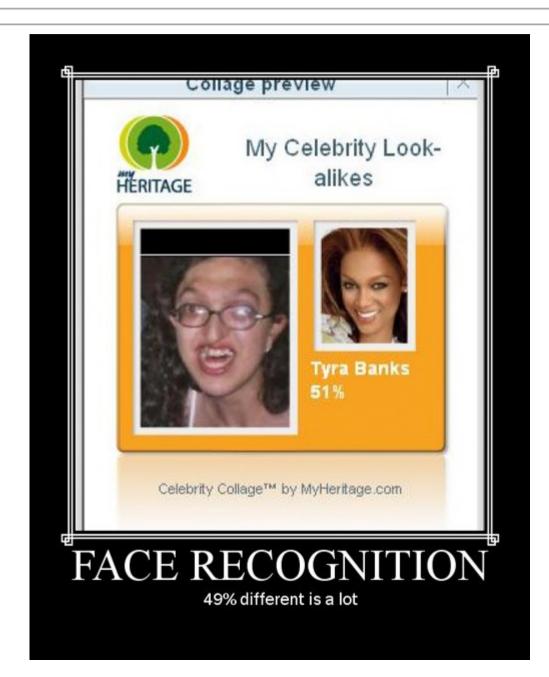
mushroom.





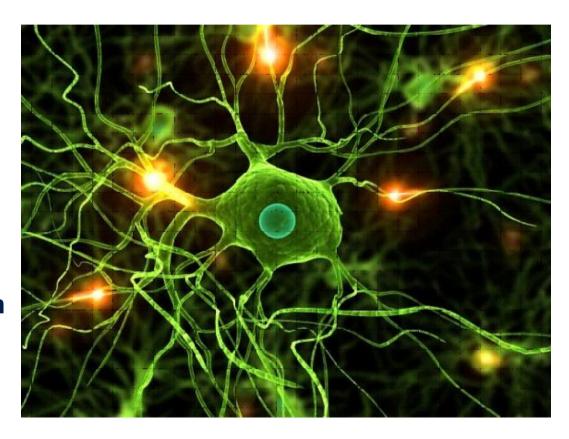


- User takes a photo of a mushroom.
- Application recognizes a mushroom and gathers information about it.





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- Gathered data are being given to the neural network, which gives possible matches.
- Application prints results to the user.





Image recognition

geting information about a mushroom, e.g cap shape, cap color, gill size.

 Neutral networks actions must give high rate of success and reliable results.



17.12.2010 Second presentation

- First implementation of a neural network which will work on a given data (not gathered from a picture)
- First release of a image recognition
- Simple GUI

28.01.2011 Final presentation

Final release of an application