

Application Development for Mobile and Ubiquitous Computing

Mushroom recognition First Presentation

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- 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.**



- User takes a photo of a mushroom.
- Application recognizes a mushroom and gathers information about it.
- **Gathered data are being given to the neural network, which gives possible matches.**



- User takes a photo of a mushroom.
- Application recognizes a mushroom and gathers information about it.
- Gathered data are being given to the neural network, which gives possible matches.
- Application prints results to the user.



- Image recognition

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

- Neural 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