

# System Design

for

Image Recognition Project

# Design Goals

- Performance Criteria
  - The program uses efficient algorithm based on Neural Network that allows to quickly process images.
  - The program supports multithreading to allow simultaneous processing of several images at a time.
  - After the image recognition process memory is released.

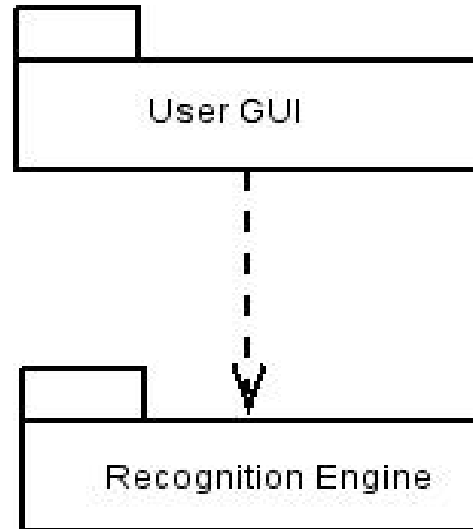
# Design Goals

- Dependability Criteria
  - Errors during the image processing should be reported to the user.
  - The program provides confirmation messages before performing critical actions (e.g. saving file).
  - Threads should be isolated enough to prevent mutual intervention.

# Design Goals

- Cost Criteria
  - Open-source;
- Maintenance/Extendability Criteria
  - More efficient and advanced algorithm for image recognition can be used.
  - More features can be supported.
- End User Criteria
  - User friendly GUI interface

# System Decomposition



# Hardware/Software Mapping

- Language
  - C++
- Framework
  - Qt

# Persistent Data Management

- Users will choose image files that they want to recognize.
- Users will be able to store the statistics of image recognition on the hard drive.

# Access Control

- Users have full access to the program and can process images if they are open for read.
- Users can store the statistics if the directory is open for write.