Image to text

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Overview

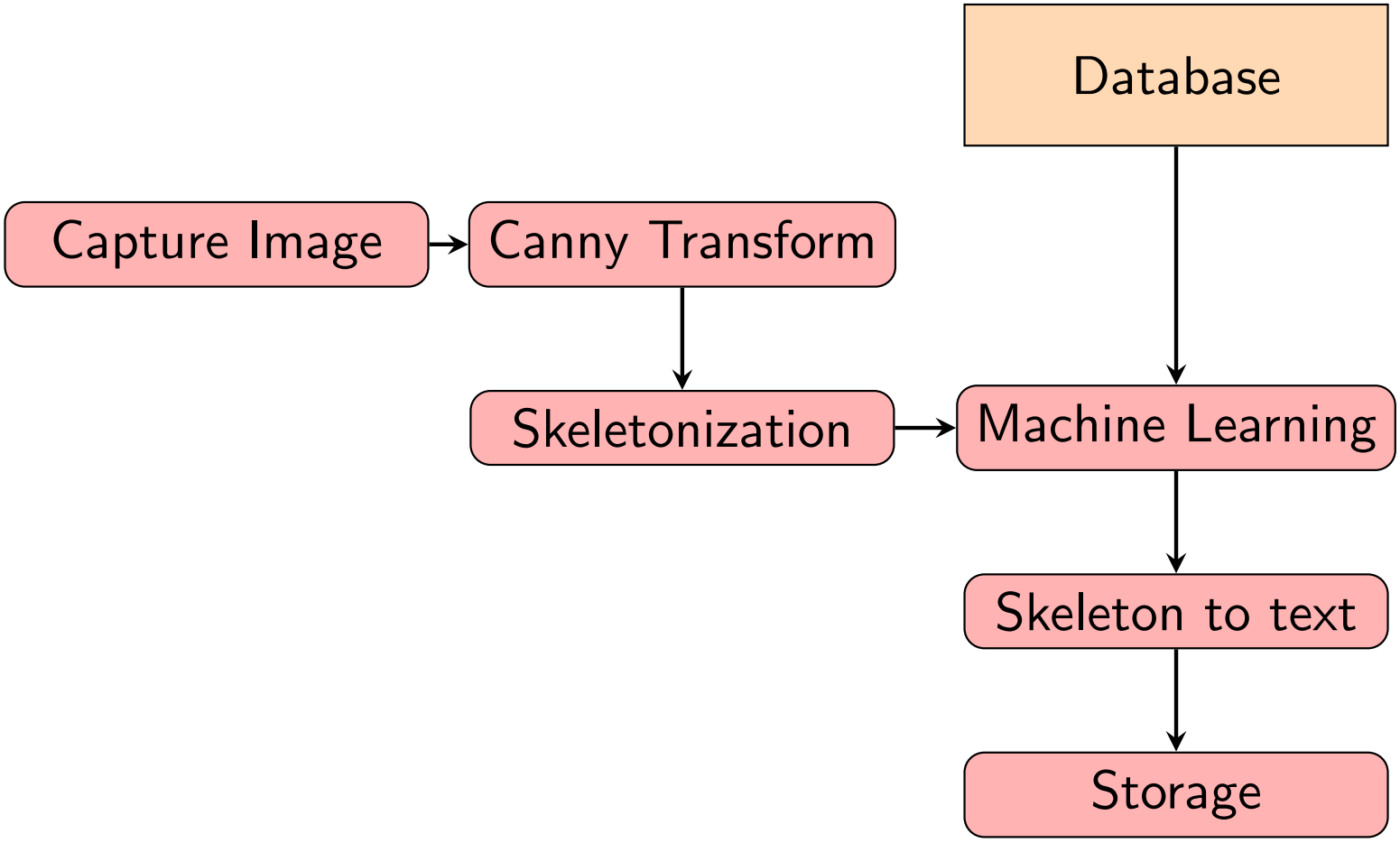
Literature survey I

- Benjamin Z. Yao, Xiong Yang, Liang Lin, Mun Wai Lee and Song-Chun Zhu proposed an image parsing to text description that generates text for images and video content.
- Yi-Ren Yeh, Chun-Hao Huang, and Yu-Chiang Frank Wang presents a novel domain adaptation approach for solving cross domain pattern recognition problem where data and features to be processed and recognized are collected for different domains.

Literature survey II

- S. Shahnawaz Ahmed, Shah Muhammed Abid Hussain and Md. Sayeed Salam [8] introduced a model of image to text conversion for electricity meter reading of units in kilo-watts by capturing its image and sending that image in the form of Multimedia Message Service (MMS) to the server.
- Fan-Chieh Cheng, Shih-Chia Huang, and Shanq-Jang Ruan gave the technique of eliminating background model form video sequence to detect foreground and objects;
- Iasonas Kokkinos and Petros Maragos formulate the interaction between image segmentation and object recognition using Expectation-Maximization (EM) algorithm.

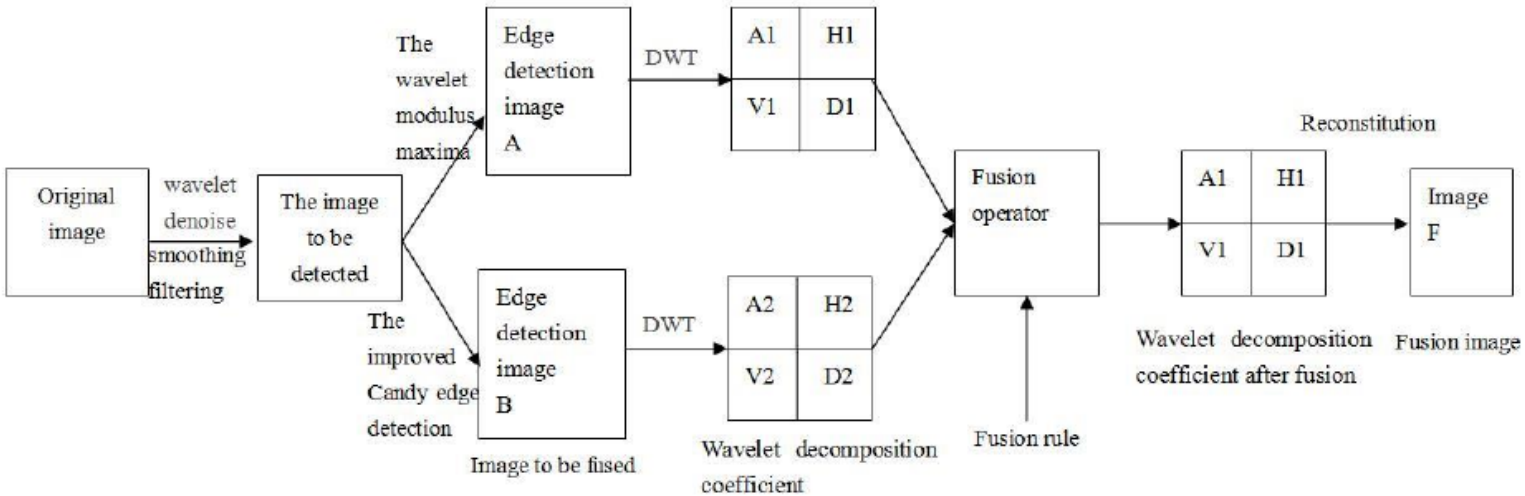
Block diagram



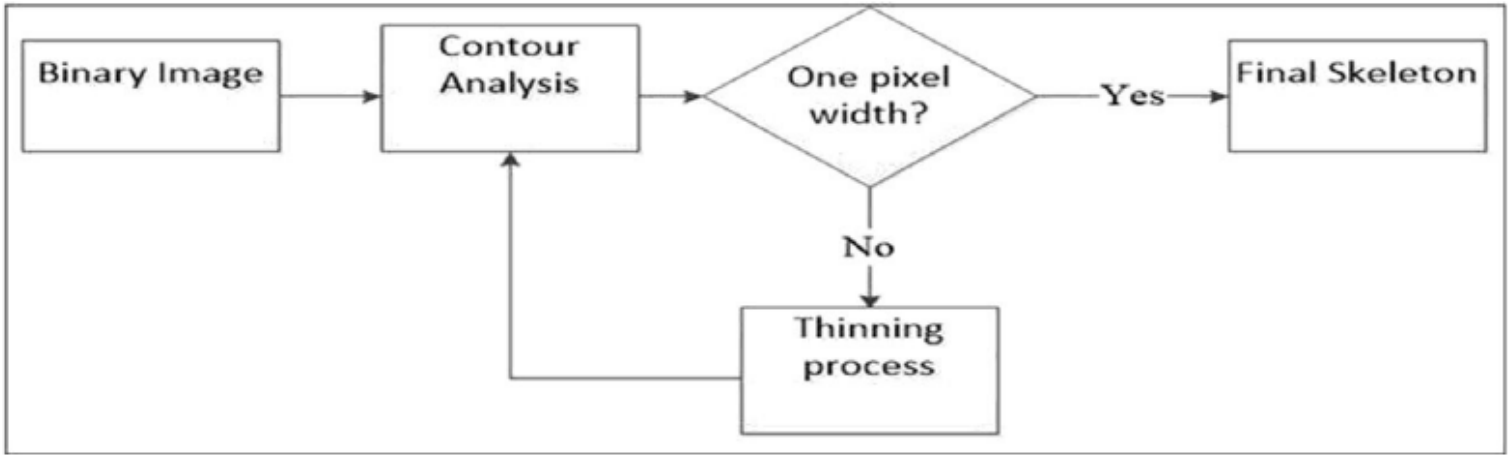
Algorithms

Algorithms

Canny Transform/Edge Detection

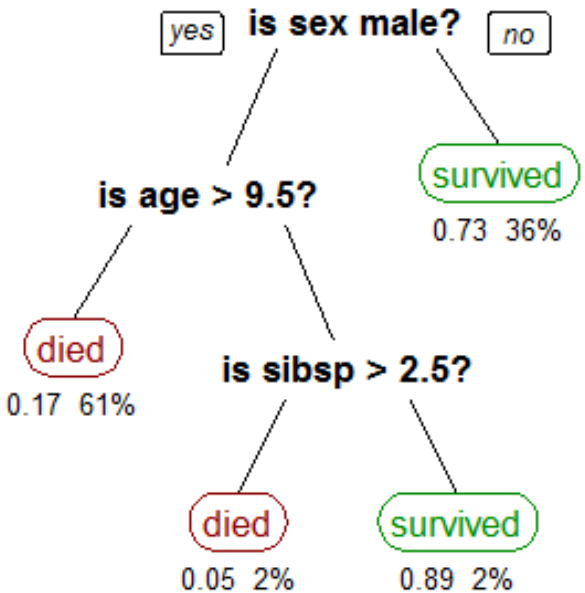


Skeletonization/Thinning



Machine Learning

- **Decision tree learning**
  - Uses a decision tree as a predictive model.
  - Predictive modeling uses statistics to predict outcomes.



Execution

Intitial setup

- Install Android Studio
- Install Anaconda library
- Create new project Android studio
- Download and import OpenCV library to Android studio project

Tools

- Android Studio
- Anaconda
- OpenCV

Dataset

- Skeleton of letters in the alphabet
- One to one maping of skeleton