Image to text

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Overview

1. Literature survey
2. Block diagram
3. Algorithms
   - Canny Transform
   - Skeletonization
   - Machine Learning
4. Execution
   - Intitial setup
   - Tools
   - Dataset

Literature survey I

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Literature survey

Block diagram

Algorithms
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Execution
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Tools
Dataset

- 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

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- 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

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Literature survey

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Machine Learning

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Intitial setup
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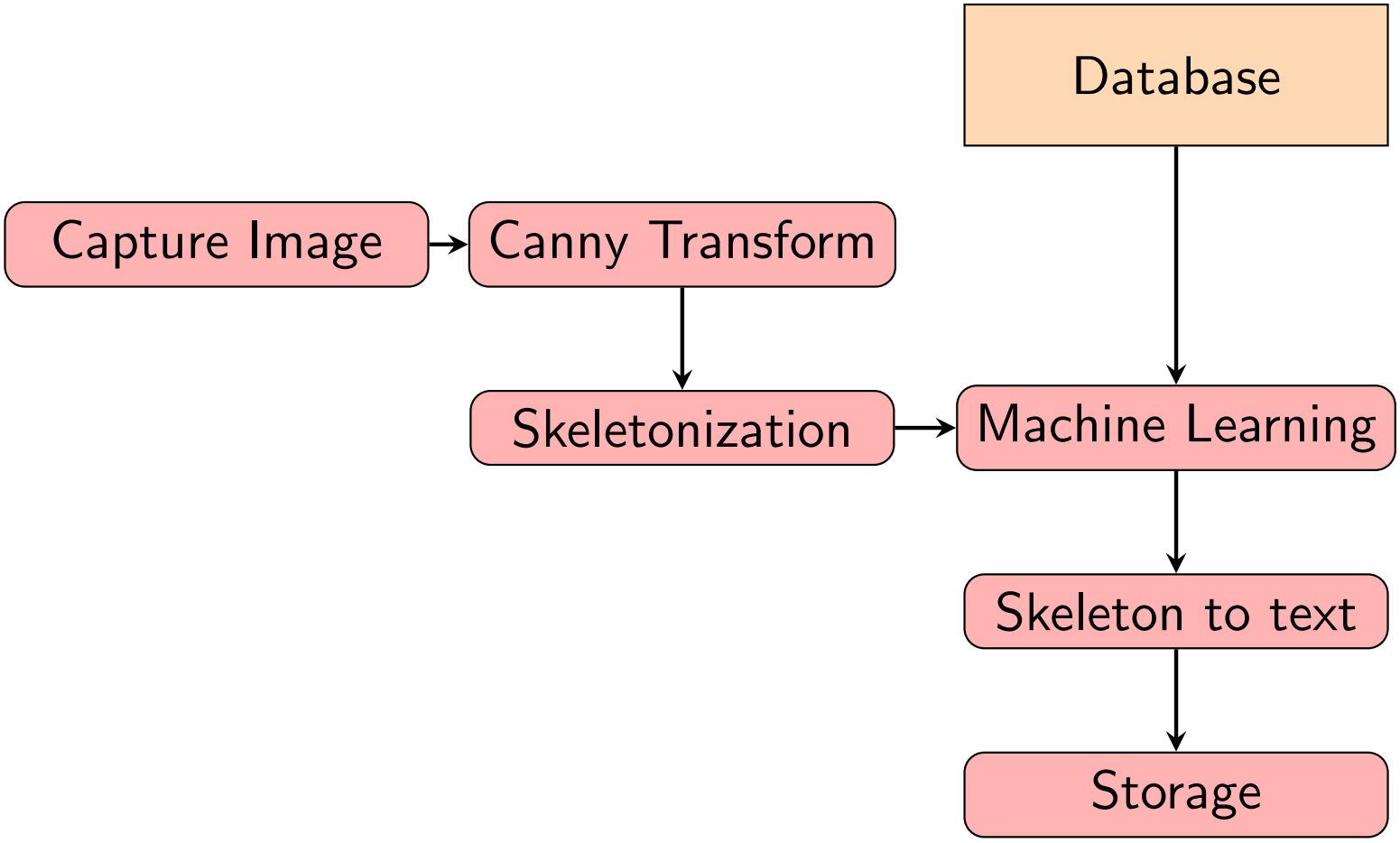

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Canny Transform
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Algorithms

Canny Transform/Edge Detection

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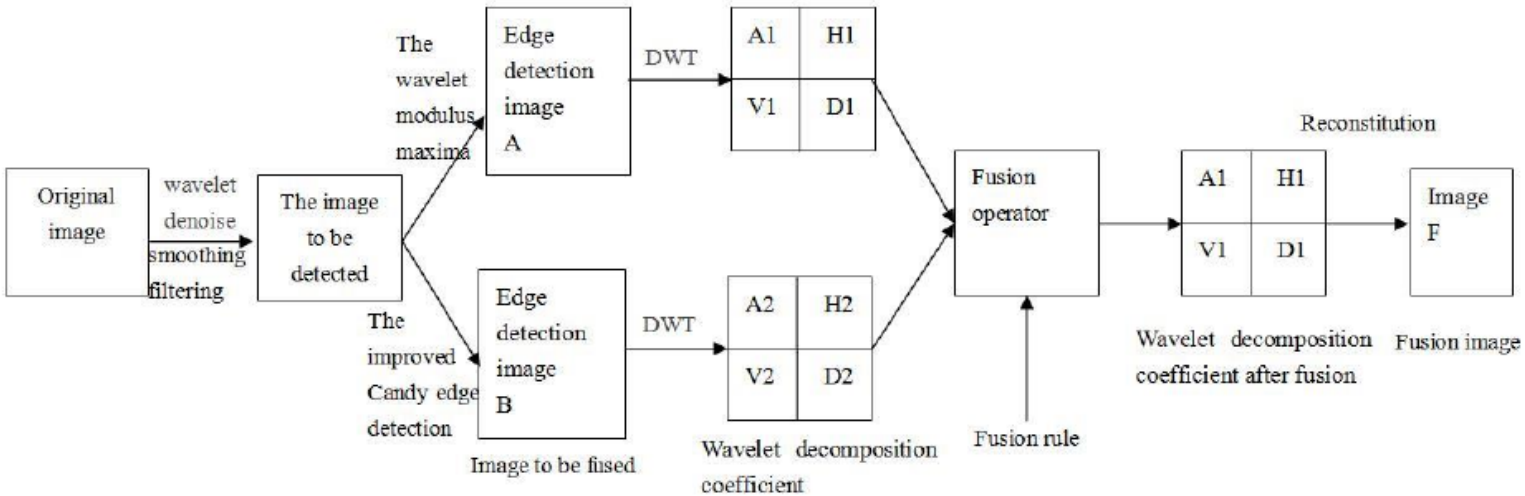
Execution
Intitial setup
Tools
Dataset



Skeletonization/Thinning

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Canny Transform
Skeletonization
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Execution
Intitial setup
Tools
Dataset

Machine Learning

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Block diagram

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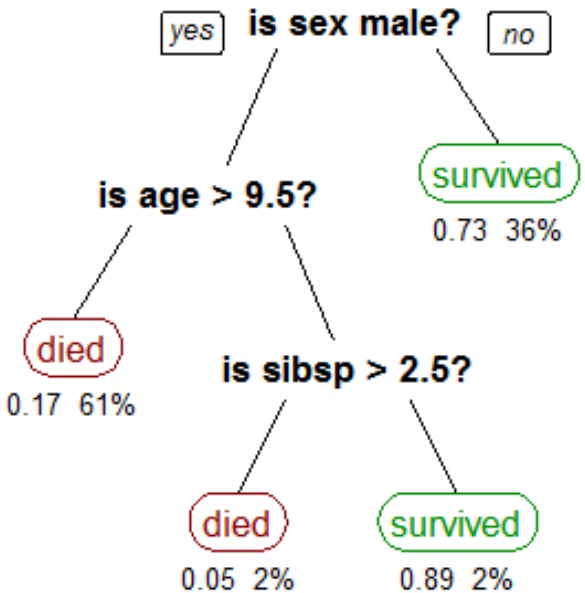
Intitial setup
Tools
Dataset

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



Implementation

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Algorithms
Canny Transform
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Execution
Intitial setup
Tools
Dataset

Execution

Intitial setup

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Intitial setup
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Dataset

- 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

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