RANDOM FORESTS

SUPPLEMENTAL MATERIAL TO RANDOM FORESTS LECTURE

CSE 455/555

PROF. J CORSO

SHAPE QUANTIZATION:
RECOGNIZING LATEX SYMBOLS

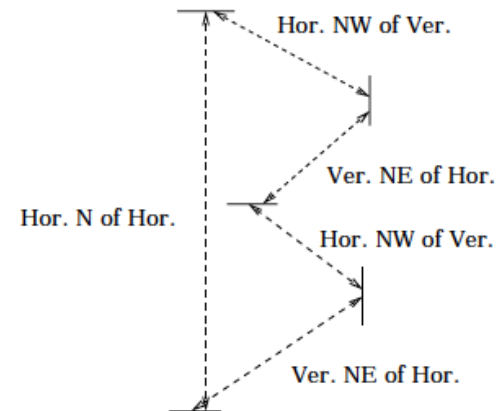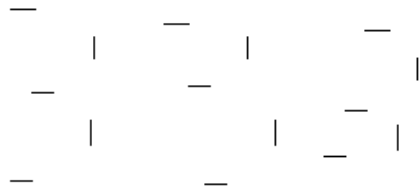# GENERATING TRAINING DATA BY PERTURBATION

SHAPE QUERIES

Figure 3: Left: Three curves corresponding to the digit '3'. Middle: Three tangent configurations determining these shapes via spline interpolation. Right: Graphical description of relations between locations of derivatives consistent with all three configurations.

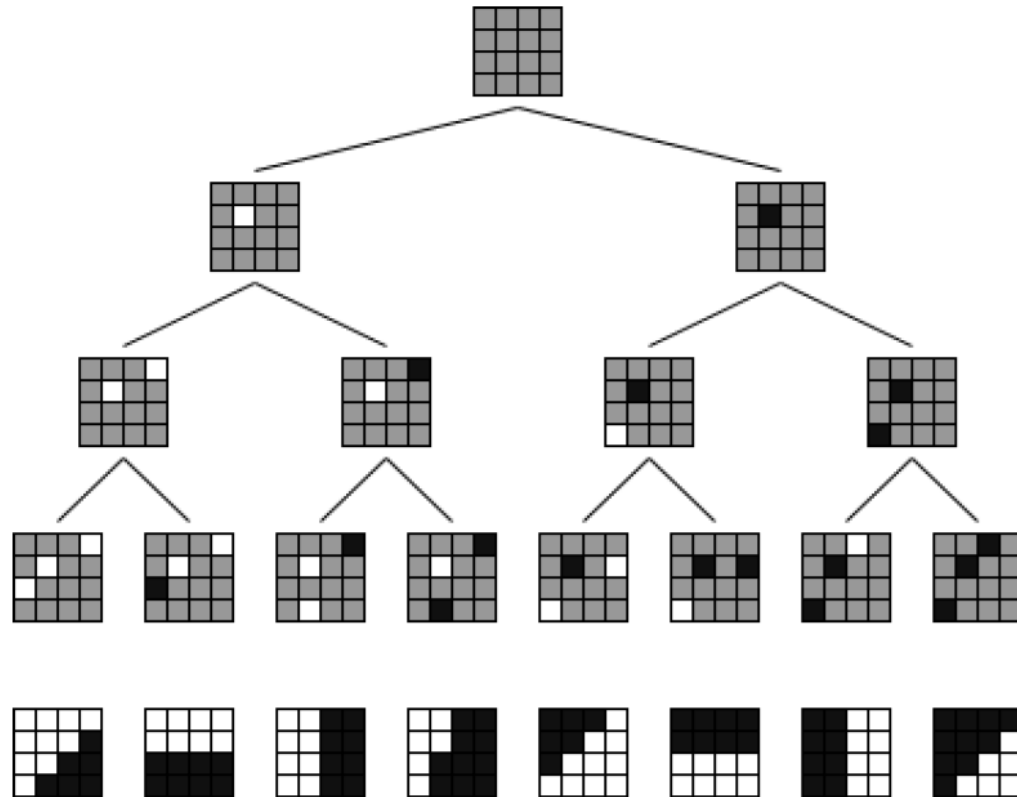# EXAMPLE OF THE TAG CODE FOR SHAPE QUANTIZATION

Figure 4: First three tag levels with most common configurations.
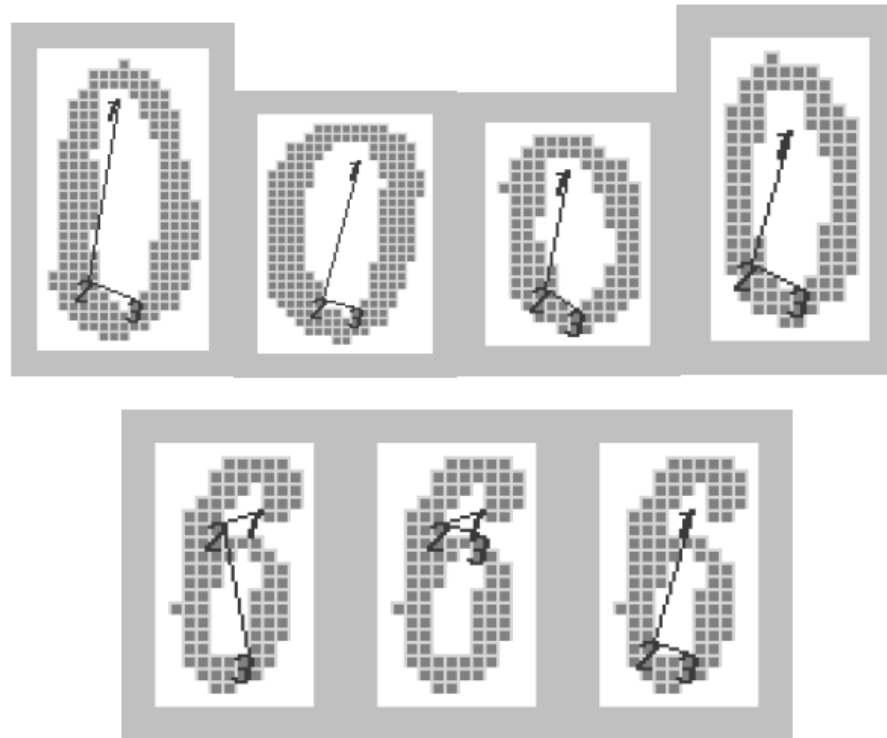
TAGS ARE ENCODED IN GEOMETRIC ARRANGMENTS

Figure 6: Top: Instances of a geometric arrangement in several 0's. Bottom: Several instances of the geometric arrangement in one 6

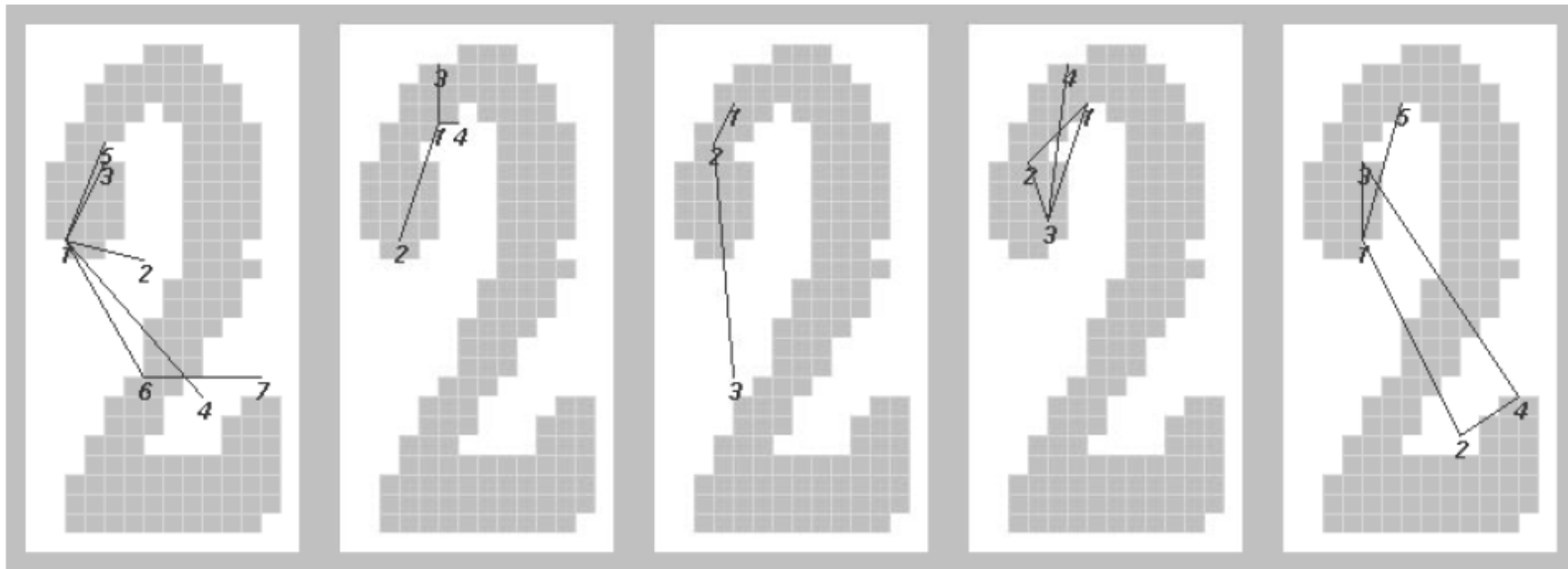# EXAMPLE STRUCTURE GRAPHS FROM MULTIPLE RANDOMIZED TREES

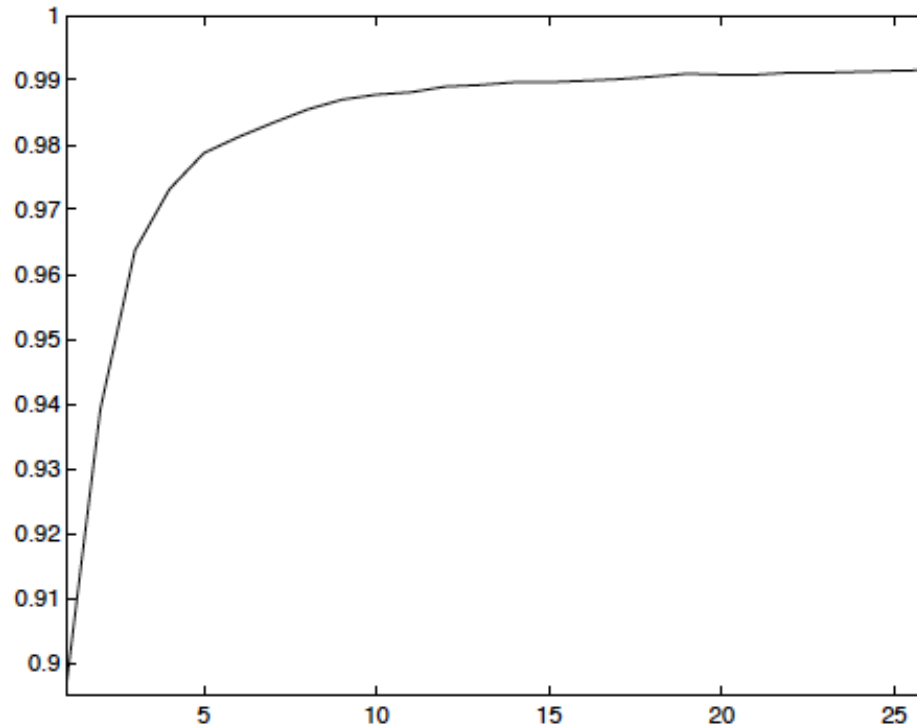Figure 9: Graphs found in an image at terminal nodes of five different trees

CLASSIFICATION RATE

Figure 13: Classification rate vs. Number of trees.