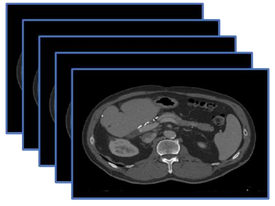
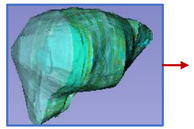
Training Stage (Offline)

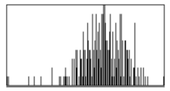
Input: Liver CT Scans



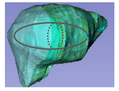
Radiomic Feature Computation



Intensity Statistics



3D Shape



Gray Level Spatial Relationships

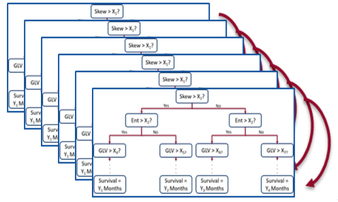
1	2	2	1	2	0	1
1	1	2	2	2	2	0
0	2	0	0	0	0	0
0	2	0	0	0	1	1
0	2	2	2	0	1	2
0	0	0	2	2	0	1
2	1	2	2	1	2	1

Feature Selection

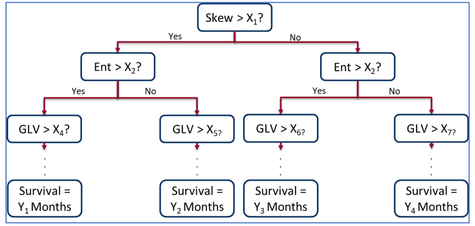
$$V(x_i) = \frac{1}{1 - R_i^2}$$

$$h(t) = h_0(t)e^{\beta_1 x_1 + \beta_2 x_2 + \ldots \beta_n x_n}$$

Random Survival Forest Modelling



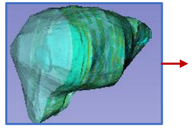
Output: Ensemble Final Survival Model



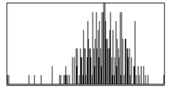
Prediction Stage (Real-Time)

Input: New Patient CT Scan

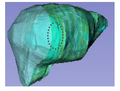
Radiomic Feature Computation



Intensity Statistics



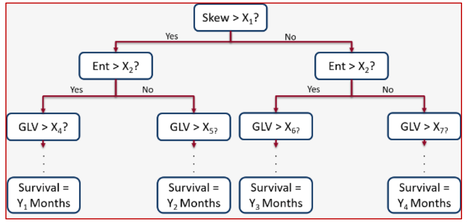
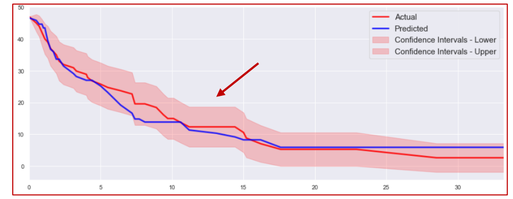
3D Shape



Gray Level Spatial Relationships

1	2	2	1	2	0	1
1	1	2	2	2	2	0
0	2	0	0	0	0	0
0	2	0	0	0	1	1
0	2	2	2	0	1	2
0	0	0	2	2	0	1
2	1	2	2	1	2	1

Compare Features to Final Survival Model



Output: Predicted Survival