Senthilkumar Karunakaran

1. Histograms

Male-Histogram
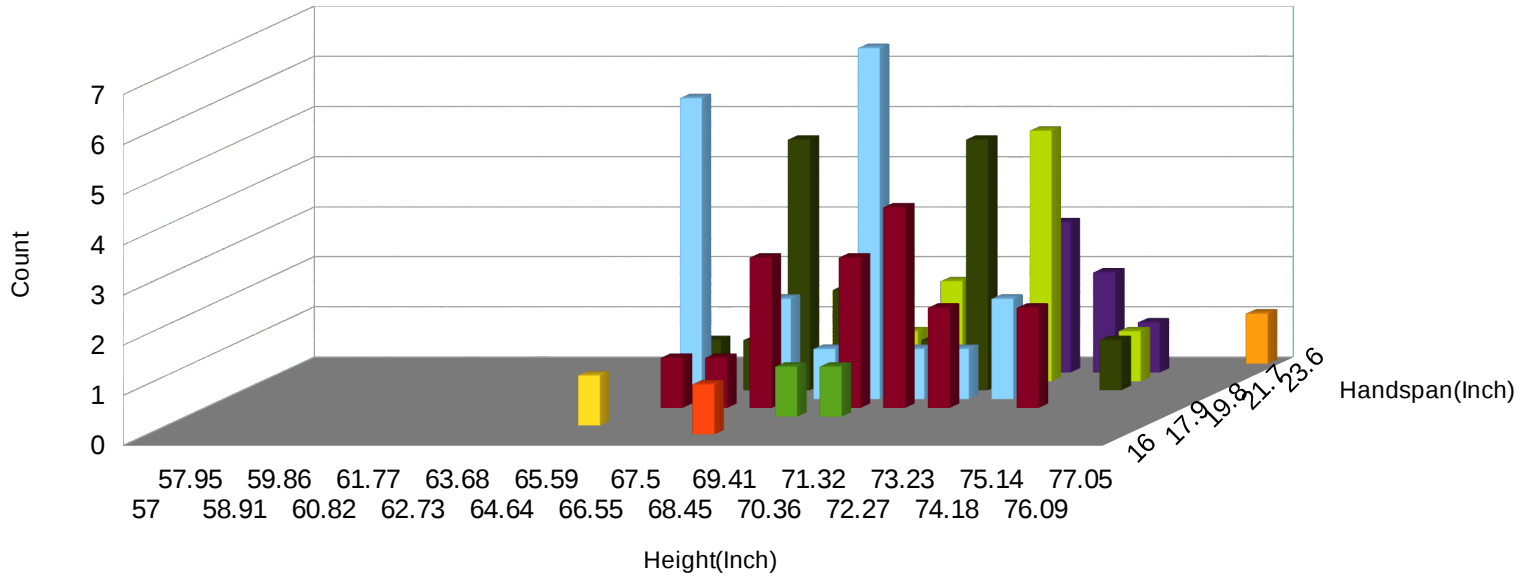
Female-Histogram
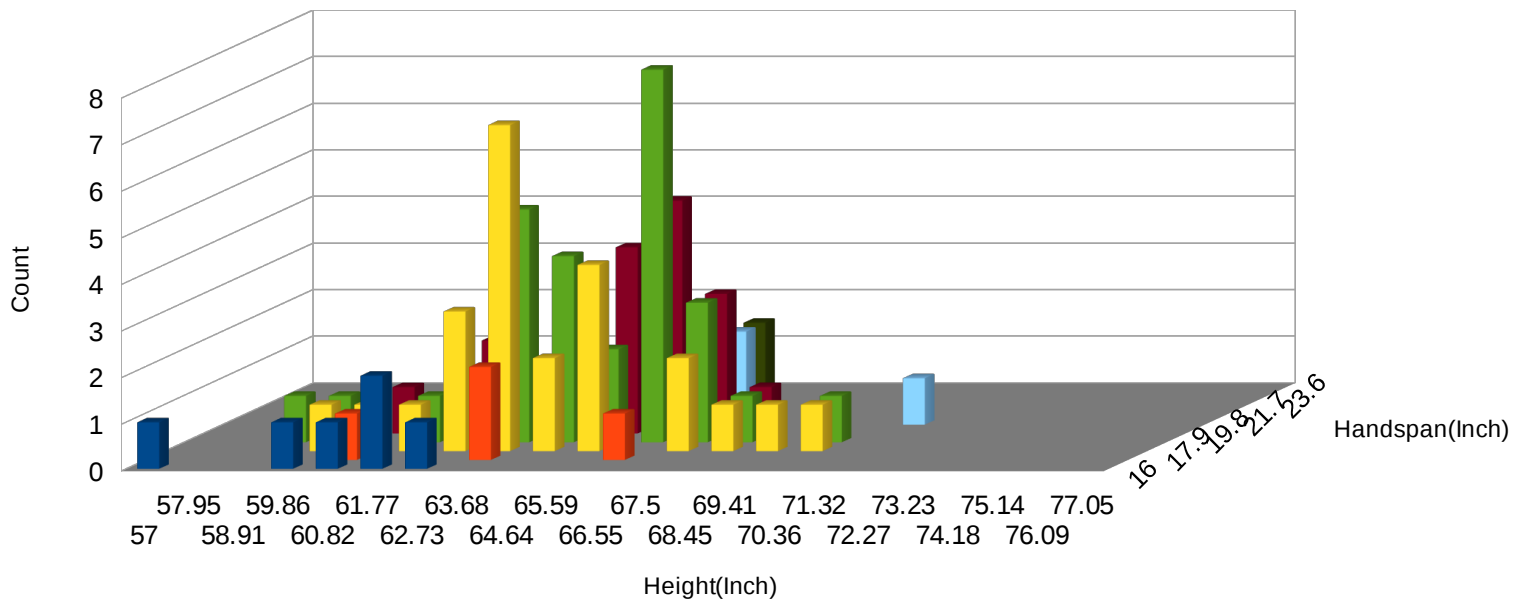
2. PDF parameters

Gender	Full data	
	Mean Vector (Height, Handspan)	Cov.Matrix
Male	[71.28846154 , 22.30128205]	[[7.08778721 1.80157343] [1.80157343 2.06064769]]
Female	[65.25280899 , 19.6011236]	[[7.75780452 1.65170135] [1.65170135 1.75670327]]

3. Probabilities

Height, Handspan	Histogram		Bayesian	
	Prediction	Probabilities (Male / Female)	Prediction	Probabilities (Male / Female)
69, 17.5	Male	1.0 / 0.0	Female	0.114140 / 0.885860
66, 22	Indeterminate	0.0 / 0.0	Female	0.374789 / 0.625211
70, 21.5	Male	1.0 / 0.0	Male	0.821329 / 0.178671
69, 23.5	Indeterminate	0.0 / 0.0	Male	0.950178 / 0.049822

4. Observation

Since there were lot of bins with 0 data, 2D histogram could not predict the result accurately. Bayesian classifier is able to predict the result deterministically.