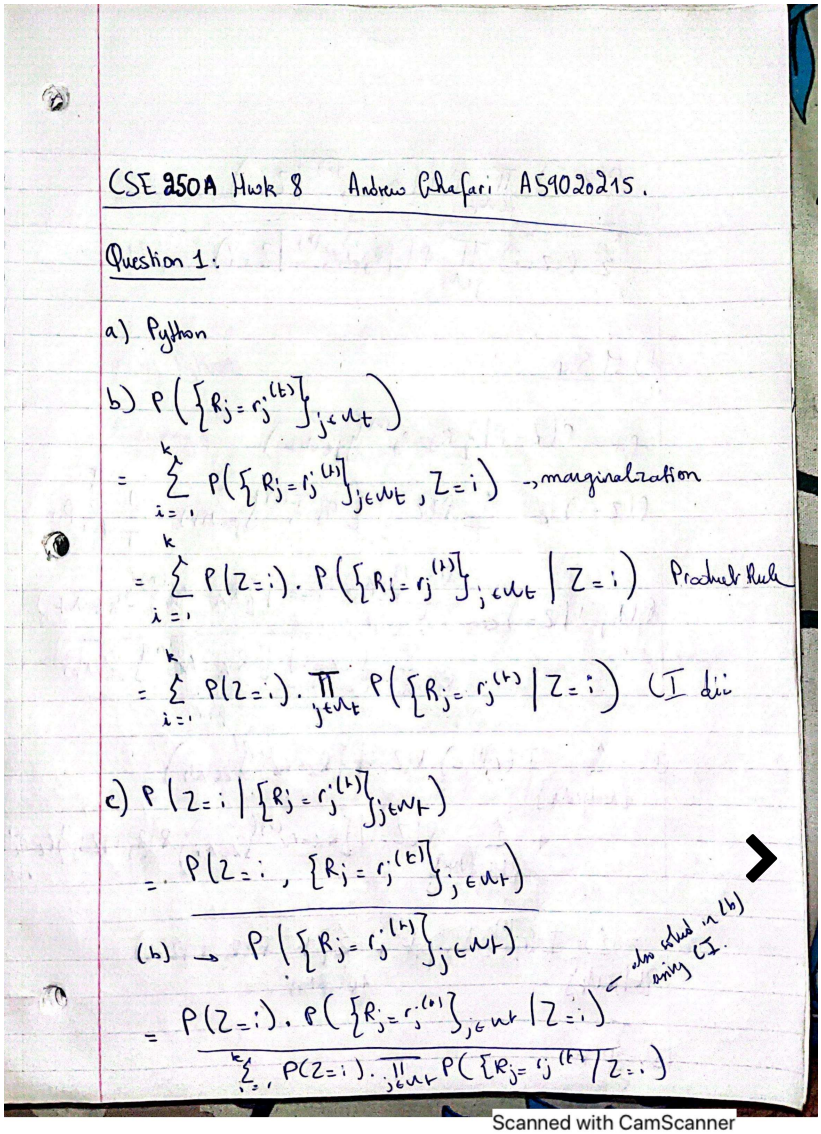

Scanned with CamScanner

All Pages

HW8

20 Hours, 26 Minutes Late

Graded

Andrew Ghafari

Total Points
59.5 / 60 pts

Question 1		
EM algorithm for binary matrix completion		25 / 25 pts
1.1	Sanity check	2 / 2 pts
1.2	Likelihood	3 / 3 pts
1.3	E-step	2 / 2 pts
1.4	M-step	3 / 3 pts
1.5	Implementation	3 / 3 pts
1.6	Personal movie recommendations	2 / 2 pts
1.7	Source code	10 / 10 pts
Question 2		
Mixture model decision boundary		8 / 8 pts
2.1	Posterior probability	3 / 3 pts
2.2	Decision boundary	3 / 3 pts
2.3	Shifting hyperplane	2 / 2 pts
Question 3		
Gradient ascent versus EM		12 / 12 pts
3.1	Log likelihood	3 / 3 pts
3.2	Gradient	3 / 3 pts
3.3	Noisy-OR	2 / 2 pts
3.4	Chain rule	1 / 1 pt
3.5	Gradient ascent versus EM	3 / 3 pts
Question 4		
Similarity learning with logistic regression		14.5 / 15 pts
4.1	Inference for similar examples	3 / 3 pts
4.2	Inference for dissimilar examples	3 / 3 pts
4.3	E-Step	4 / 4 pts
4.4	Log-likelihood	3 / 3 pts
4.5	M-step	1.5 / 2 pts