

## A. Appendix

Table 3. *SILQ membership values for  $A_2$ , with  $\alpha = 1$ ,  $\beta = 0.5$ ,  $q = 25$*

Table 1. *Toy data for probabilistic trees*

Spelling	GeoDistance	Spam
perfect	far	no
mixed	close	yes
perfect	close	no
terrible	far	yes
terrible	far	yes
mixed	far	no
mixed	close	no
perfect	far	no
terrible	far	yes
mixed	close	no
mixed	far	no

A1	M	Y
21	0.502841	1
22	0.586093	0
23	0.702381	0
24	0.876238	0
25	1	0
26	0.876238	1
27	0.702381	1
28	0.586093	1
29	0.502841	0
30	0.440299	1
31	0.391593	0
32	0.35259	1

Table 2. *Toy data for fuzzy SILQ algorithm*

$A_1$	$A_2$	Y
21	30	0
22	13	0
23	6	0
24	8	0
25	11	0
26	20	1
27	36	1
28	8	1
29	15	0
30	22	1
31	13	0
32	22	1