Detailed results of the proposed method

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1 Performance of the proposed method

Table 1: Performance of the proposed method at hierarchical framework Stage-1 by utilizing only relevant descriptors and a rate of update of $\beta = 1$ for (a) developer, (b) leader, and (c) both.

(a)

		Estimated task		
		Doc.	Test	Other
Ground truth	Doc.	0	0	0
	Test	0	0.96	0. 04
	Other	0	0.22	0.78
	Tot.		0.93	

(b)

		Estimated task		
		Doc.	Test	Other
Ground truth	Doc.	0.99	0	0.01
	Test	0	1.00	0
	Other	0.12	0	0.88
	Tot.		0.99	

(c)

		Estimated task		
		Doc.	Test	Other
Ground truth	Doc.	0.99	0	0.01
	Test	0	0.96	0.04
	Other	0.06	0.12	0.82
	Tot.		0.94	

Table 2: Performance of the proposed method at hierarchical framework Stage-2 by utilizing only relevant descriptors and a rate of update of $\beta = 1$ for (a) developer, (b) leader, and (c) both.

(a)

		Estimated task		
		Admin.	Leis.	Prog.
Ground truth	Admin.	0.62	0	0.38
	Leis.	0	0	0
	Prog.	0	0	1.00
	Tot.		0.98	

(b)

		Estimated task		
		Admin.	Leis.	Prog.
Ground truth	Admin.	0.63	0.37	0
	Leis.	0	1.00	0
	Prog.	0	0	0
	Tot.		0.94	

(c)

		Estimated task		
		Admin.	Leis.	Prog.
Ground truth	Admin.	0.62	0.29	0.09
	Leis.	0	1.00	0
	Prog.	0	0	1.00
	Tot.		0.96	

2 Performance of the proposed method in non-hierarchical framework

Table 3: Performance of the proposed method in non-hierarchical framework by utilizing only relevant descriptors and a rate of update of $\beta = 1$ for (a) developer, (b) leader, and (c) both.

(a)

		Estimated task				
		Doc.	Test	Admin.	Leis.	Prog.
Ground truth	Doc.	0	0	0	0	0
	Test	0	0.94	0	0	0.06
	Admin.	0	0.31	0.69	0	0
	Leis.	0	0	0	0	0
	Prog.	0	0.39	0	0	0.61
	Tot.	0.89				

(b)

		Estimated task				
		Doc.	Test	Admin.	Leis.	Prog.
Ground truth	Doc.	0.96	0.02	0.01	0.01	0
	Test	0	1.00	0	0	0
	Admin.	0.44	0.02	0.54	0	0
	Leis.	0	0	0.04	0.96	0
	Prog.	0	0	0	0	0
	Tot.	0.95				

(c)

		Estimated task				
		Doc.	Test	Admin.	Leis.	Prog.
Ground truth	Doc.	0.96	0.02	0.01	0.01	0
	Test	0	0.94	0	0	0.06
	Admin.	0.34	0.09	0.57	0	0
	Leis.	0	0	0.04	0.96	0
	Prog.	0	0.39	0	0	0.61
	Tot.	0.91				

3 Performance of the proposed method by utilizing all descriptors

Table 4: Performance of the proposed method at hierarchical framework Stage-1 by utilizing all descriptors and a rate of update of $\beta = 1$ for (a) developer, (b) leader, and (c) both.

(a)

		Estimated task		
		Doc.	Test	Other
Ground truth	Doc.	0	0	0
	Test	0	0.87	0. 13
	Other	0	0.21	0.79
	Tot.		0.86	

(b)

		Estimated task		
		Doc.	Test	Other
Ground truth	Doc.	0.84	0.15	0.01
	Test	0	1.00	0
	Other	0.01	0.09	0.90
	Tot.		0.85	

(c)

		Estimated task		
		Doc.	Test	Other
Ground truth	Doc.	0.84	0.15	0.01
	Test	0	0.87	0.13
	Other	0.01	0.16	0.83
	Tot.		0.85	

Table 5: Performance of the proposed method at hierarchical framework Stage-2 by utilizing all descriptors and a rate of update of $\beta = 1$ for (a) developer, (b) leader, and (c) both.

(a)

		Estimated task		
		Admin.	Leis.	Prog.
Ground truth	Admin.	1.00	0	0
	Leis.	0	0	0
	Prog.	0.05	0	0.95
	Tot.		0.96	

(b)

		Estimated task		
		Admin.	Leis.	Prog.
Ground truth	Admin.	1.00	0	0.00
	Leis.	0.04	0.96	0
	Prog.	0	0	0
	Tot.		0.96	

(c)

		Estimated task		
		Admin.	Leis.	Prog.
Ground truth	Admin.	1	0	0
	Leis.	0.04	0.96	0
	Prog.	0.05	0	0.95
	Tot.		0.96	

4 Performance of the proposed method by utilizing a rate of update of $\beta \neq 1$

Table 6: Performance of the proposed method at hierarchical framework Stage-1 by utilizing only relevant descriptors and a rate of update of $\beta = 0$ for (a) developer, (b) leader, and (c) both.

(a)

		Estimated task		
		Doc.	Test	Other
Ground truth	Doc.	0	0	0
	Test	0	0.88	0.12
	Other	0	0.30	0.70
	Tot.		0.85	

(b)

		Estimated task		
		Doc.	Test	Other
Ground truth	Doc.	0.98	0.01	0.01
	Test	0.14	0.86	0
	Other	0.13	0.01	0.86
	Tot.		0.95	

(c)

		Estimated task		
		Doc.	Test	Other
Ground truth	Doc.	0.98	0.01	0.01
	Test	0	0.88	0.12
	Other	0.06	0.17	0.77
	Tot.		0.89	

Table 7: Performance of the proposed method at hierarchical framework Stage-2 by utilizing only relevant descriptors and a rate of update of $\beta = 0$ for (a) developer, (b) leader, and (c) both.

(a)

		Estimated task		
		Admin.	Leis.	Prog.
Ground truth	Admin.	1.00	0	0
	Leis.	0	0	0
	Prog.	0.07	0	0.93
	Tot.		0.96	

(b)

		Estimated task		
		Admin.	Leis.	Prog.
Ground truth	Admin.	1.00	0	0
	Leis.	0.04	0.96	0
	Prog.	0	0	0
	Tot.		0.96	

(c)

		Estimated task		
		Admin.	Leis.	Prog.
Ground truth	Admin.	1.00	0	0
	Leis.	0.04	0.96	0
	Prog.	0.07	0	0.93
	Tot.		0.95	

Table 8: Performance of the proposed method at hierarchical framework Stage-1 by utilizing only relevant descriptors and a rate of update of $\beta = 0.5$ for (a) developer and (b) leader, and (c) both.

(a)

		Estimated task		
		Doc.	Test	Other
Ground truth	Doc.	0	0	0
	Test	0	0.87	0.13
	Other	0	0.20	0.80
	Tot.		0.86	

(b)

		Estimated task		
		Doc.	Test	Other
Ground truth	Doc.	0.96	0.02	0.02
	Test	0	1.00	0
	Other	0.04	0.01	0.95
	Tot.		0.96	

(c)

		Estimated task		
		Doc.	Test	Other
Ground truth	Doc.	0.96	0.02	0.02
	Test	0	0.87	0.13
	Other	0.02	0.11	0.87
	Tot.		0.90	

Table 9: Performance of the proposed method at hierarchical framework Stage-2 by utilizing only relevant descriptors and a rate of update of $\beta = 0.5$ for (a) developer, (b) leader, and (c) both.

(a)

		Estimated task		
		Admin.	Leis.	Prog.
Ground truth	Admin.	0.92	0	0.08
	Leis.	0	0	0
	Prog.	0.03	0	0.97
	Tot.		0.96	

(b)

		Estimated task		
		Admin.	Leis.	Prog.
Ground truth	Admin.	1	0	0
	Leis.	0.04	0.96	0
	Prog.	0	0	0
	Tot.		0.96	

(c)

		Estimated task		
		Admin.	Leis.	Prog.
Ground truth	Admin.	0.98	0	0.02
	Leis.	0.04	0.96	0
	Prog.	0.03	0	0.97
	Tot.		0.96	