

Homework 04 for machine learning

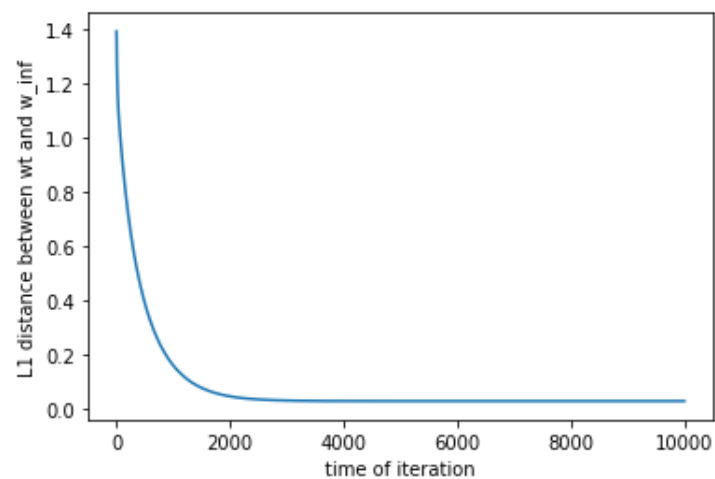
Uni: jg4185

Name: Jiaqing Ge

1 (a)

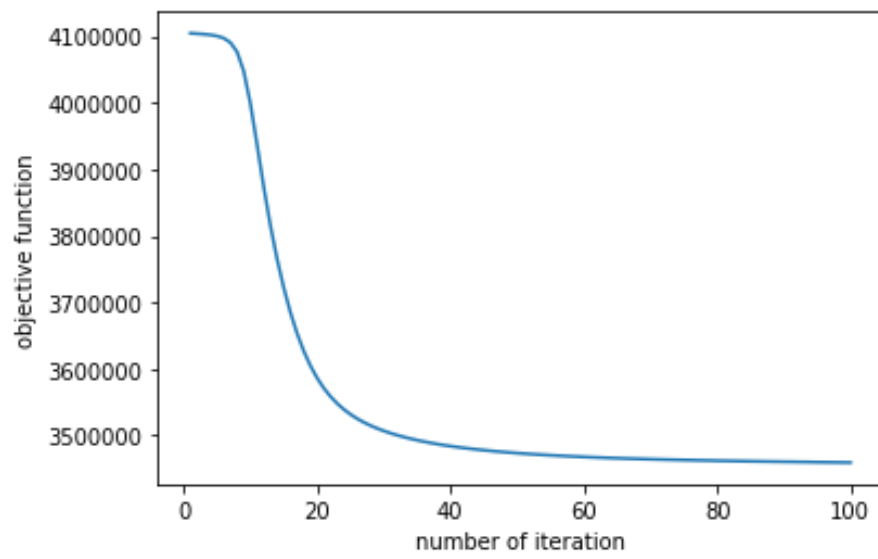
Team names Iteration 10			Team names Iteration 100			Team names Iteration 1000			Team names Iteration 10000		
466	NorthCentral	0.012812	326	LSU	0.043642	326	LSU	0.084419	326	LSU	0.091366
326	LSU	0.012578	744	Wheaton	0.025822	135	Clemson	0.045527	135	Clemson	0.049262
436	Morningside	0.011511	466	NorthCentral	0.024442	492	OhioState	0.043452	492	OhioState	0.047009
744	Wheaton	0.011088	135	Clemson	0.023704	243	Georgia	0.032720	243	Georgia	0.035382
405	MinnSt-Mankato	0.009633	492	OhioState	0.022688	5	Alabama	0.024679	5	Alabama	0.026695
440	Muhlenberg	0.009507	436	Morningside	0.022621	217	Florida	0.023696	217	Florida	0.025624
492	OhioState	0.009241	243	Georgia	0.017165	501	Oregon	0.019266	501	Oregon	0.020779
679	UW-Whitewater	0.009165	606	StJohnsMN	0.014990	39	Auburn	0.019037	39	Auburn	0.020582
468	NorthDakotaSt	0.009137	726	WestFlorida	0.013367	495	Oklahoma	0.018703	495	Oklahoma	0.020202
135	Clemson	0.008941	5	Alabama	0.012917	510	PennState	0.017974	510	PennState	0.019429
726	WestFlorida	0.008785	679	UW-Whitewater	0.012836	760	Wisconsin	0.015165	760	Wisconsin	0.016392
367	MarianIN	0.008515	217	Florida	0.012440	485	NotreDame	0.014647	485	NotreDame	0.015820
606	StJohnsMN	0.008488	440	Muhlenberg	0.011238	407	Minnesota	0.014201	407	Minnesota	0.015347
438	MountUnion	0.007653	501	Oregon	0.010530	54	Baylor	0.012704	54	Baylor	0.013716
212	FerrisSt	0.007122	39	Auburn	0.010021	393	Michigan	0.012045	393	Michigan	0.013023
252	GrandView	0.007114	495	Oklahoma	0.010012	686	Utah	0.011703	686	Utah	0.012617
243	Georgia	0.007013	405	MinnSt-Mankato	0.009752	385	Memphis	0.011663	385	Memphis	0.012590
374	MaryHardin-Baylor	0.006778	367	MarianIN	0.009583	296	Iowa	0.011006	296	Iowa	0.011894
340	Lenoir-Rhyne	0.006163	510	PennState	0.009534	26	AppalachianSt	0.010923	26	AppalachianSt	0.011792
575	SlipperyRock	0.006088	690	ValdostaSt	0.008894	637	Texas	0.010187	637	Texas	0.011003
501	Oregon	0.005900	340	Lenoir-Rhyne	0.008070	468	NorthDakotaSt	0.009224	445	Navy	0.009785
175	DelawareValley	0.005840	760	Wisconsin	0.008019	445	Navy	0.009071	468	NorthDakotaSt	0.009717
303	JamesMadison	0.005666	485	NotreDame	0.007866	640	TexasA&M	0.008933	640	TexasA&M	0.009658
690	ValdostaSt	0.005544	407	Minnesota	0.007532	75	BoiseSt	0.008306	75	BoiseSt	0.008943
217	Florida	0.005437	252	GrandView	0.007521	311	KansasSt	0.007334	311	KansasSt	0.007916

(b)



2

(a)



(b)

Word Group 0			Word Group 1			Word Group 2			Word Group 3			Word Group 4		
1	percent	0.033491	270	food	0.018125	0	company	0.035470	32	member	0.013640	138	music	0.018331
97	rate	0.020685	144	serve	0.009691	170	industry	0.022798	33	president	0.012902	3	play	0.016959
152	rise	0.019447	466	restaurant	0.009386	36	business	0.016109	259	interview	0.011040	184	film	0.012916
47	price	0.015573	876	fresh	0.008782	34	market	0.013989	4	official	0.010667	275	performance	0.010835
34	market	0.013931	741	eat	0.007899	69	executive	0.013026	198	meeting	0.010403	515	audience	0.010762
93	increase	0.012638	918	taste	0.007818	328	product	0.012445	174	board	0.010192	321	movie	0.009947
98	fall	0.011737	1166	dry	0.007791	131	sale	0.011496	22	report	0.009526	445	stage	0.008329
110	low	0.011624	233	water	0.007596	33	president	0.011358	137	decision	0.008999	364	production	0.008288
22	report	0.011510	721	pound	0.007232	79	sell	0.010852	446	staff	0.008918	523	theater	0.008065
316	decline	0.010377	1044	cook	0.007092	535	network	0.009483	69	executive	0.008406	55	director	0.007751

	Word	Group 5		Word	Group 6		Word	Group 7		Word	Group 8		Word	Group 9					
	31	thing	0.020527		39	pay	0.020303		67	police	0.035504		27	issue	0.012973		0	company	0.029478
	87	feel	0.013326		49	money	0.019872		258	kill	0.018467		10	group	0.012338		79	sell	0.017650
	99	lot	0.012032		257	budget	0.013785		6	man	0.018283		122	black	0.011991		113	share	0.017333
	187	really	0.011848		86	cost	0.013756		169	officer	0.017269		30	public	0.011218		112	buy	0.016481
	42	ask	0.010939		2	state	0.013391		558	arrest	0.014988		861	protest	0.008517		140	stock	0.016033
	222	happen	0.009816		134	tax	0.013176		405	crime	0.013370		208	white	0.007755		235	bank	0.013679
	68	little	0.009379		13	program	0.011939		4	official	0.012661		893	religious	0.006866		320	financial	0.013651
	50	put	0.009361		91	cut	0.010433		630	victim	0.012361		220	community	0.006568		36	business	0.011825
	18	tell	0.009304		182	bill	0.010030		211	death	0.011458		2	state	0.006396		39	pay	0.011675
	181	kind	0.008324		308	benefit	0.009740		35	yesterday	0.011210		493	debate	0.005831		301	firm	0.011097

	Word	Group 10		Word	Group 11		Word	Group 12		Word	Group 13		Word	Group 14
265	computer	0.013309	44	family	0.022480	171	mrs	0.051137	150	vote	0.022879	4	official	0.016864
74	system	0.011255	19	woman	0.022116	433	graduate	0.042892	132	campaign	0.021354	8	plan	0.013854
163	information	0.010177	20	child	0.021497	218	father	0.037396	75	political	0.020080	280	agreement	0.013801
427	technology	0.008922	177	friend	0.020163	324	son	0.032361	120	party	0.017313	214	agree	0.011985
219	site	0.007849	21	life	0.019244	33	president	0.031934	216	election	0.016871	353	proposal	0.009675
865	internet	0.006882	6	man	0.017211	585	retire	0.030940	253	republican	0.016344	141	effort	0.009191
367	available	0.006859	115	young	0.015171	459	daughter	0.023738	319	candidate	0.013711	464	propose	0.008648
360	research	0.006274	380	wife	0.014477	118	receive	0.022854	383	democratic	0.012974	816	negotiation	0.008087
776	datum	0.006076	72	live	0.014079	564	degree	0.021922	84	leader	0.012172	136	meet	0.007907
64	number	0.005756	16	home	0.013191	55	director	0.021558	2	state	0.011072	109	allow	0.007896

Word Group 15			Word Group 16			Word Group 17			Word Group 18			Word Group 19		
7	city	0.025474	476	wear	0.015007	12	american	0.041867	9	school	0.029335	161	art	0.022379
121	building	0.022242	130	room	0.010188	11	states	0.039881	58	student	0.023802	332	artist	0.012376
330	resident	0.015745	799	dress	0.009158	24	country	0.037728	100	drug	0.015054	578	museum	0.009440
102	area	0.015653	212	store	0.008847	45	world	0.023404	352	doctor	0.014272	649	collection	0.008589
149	build	0.015431	732	shop	0.007313	465	foreign	0.014298	20	child	0.014158	760	exhibition	0.008167
220	community	0.011946	697	blue	0.007009	430	international	0.012790	139	study	0.013562	817	photograph	0.008054
82	house	0.011304	208	white	0.006833	15	government	0.012590	13	program	0.012978	262	design	0.007970
200	project	0.010516	693	table	0.006820	337	americans	0.011403	202	health	0.012258	462	image	0.007348
444	neighborhood	0.009930	112	buy	0.006709	668	european	0.010704	389	patient	0.011555	744	painting	0.006913
219	site	0.009843	852	fashion	0.006676	196	nation	0.009864	539	medical	0.011348	1070	gallery	0.006126

	Word	Group 20		Word	Group 21		Word	Group 22		Word	Group 23		Word	Group 24
101	book	0.024594	153	war	0.020003	17	case	0.023738	5	game	0.023620	355	mile	0.014030
70	write	0.022372	188	military	0.019683	162	lawyer	0.020375	28	team	0.019423	233	water	0.011740
290	editor	0.019988	63	force	0.013844	126	court	0.019982	3	play	0.018669	418	travel	0.009856
562	writer	0.012851	190	attack	0.012084	48	law	0.017434	40	win	0.015947	94	hour	0.009759
695	author	0.010516	15	government	0.011270	88	charge	0.014469	103	player	0.015438	155	car	0.008951
661	publish	0.009844	547	peace	0.010363	313	judge	0.013608	53	season	0.015207	471	train	0.008847
482	page	0.009563	4	official	0.009411	404	trial	0.010781	25	second	0.013477	590	trip	0.008351
21	life	0.009333	12	american	0.008872	477	legal	0.010659	292	victory	0.009589	396	air	0.008171
406	read	0.008922	684	troop	0.008842	496	investigation	0.010149	228	score	0.008933	842	ride	0.007846
192	history	0.008177	567	weapon	0.008502	443	file	0.008860	314	coach	0.008397	541	road	0.007549