Journal Report 15 02/10/20-02/17/20 Bryan Lu Computer Systems Research Lab Period 2, White

Daily Log

Monday, February 10

Isolated a sentence and a set of annotations by hand. Created and started debugging a new code segment to take a sentence, parse it for syntax, and process its annotations into a semantic tree.

Tuesday, February 11

Finished working out the debugging in the method taking annotations to semantic trees, corrected erroneous processing of annotation data.

Thursday, February 13

Watched presentations for part of class, and started to reformat my personal annotations from November/December into the same format.

Timeline

Date	Goal	Met
1/27	Pending annotations, get everything	Yes! My snippet can output syntax
	up until the annotations step to work	parses for individual problems now,
	with olympiad problems, and work	but I won't do local problem access
	out other cosmetic details.	until I have to run it multiple times
		with the tag model.
2/3	Assuming I have annotation data,	Couldn't do a lot of this because of
	run it through the parser to check it	presentations, but I will do this start-
	works, and format olympiad prob-	ing next week and into the week after.
	lems in that method. Else, begin trial	
	and error process.	
2/10	Run annotation data combined with	Finished (with a questionable level of
	problems through code and turn	success?), still working on reformat-
	them into semantic trees, reformat	ting my annotated olympiad prob-
	my annotated problems.	lems.
2/17	Finalize annotation data for the	N/A
	olympiad problems and ensure	
	that they produce valid, connected	
	semantic trees.	
2/24	Start training the Naive Tag Model	N/A
	with olympiad problems, fix any is-	
	sues that may arise.	

Reflection

The case I worked with this week as the subject of my annotation debugging was the following:

sentence: In the figure above, line AB, line CD, and line EF intersect at P. annotations: IsLine@5(line@6), IsLine@8(line@9), IsLine@12(line@13), CC@11(line@6, line@9), CC@11(line@6, line@13), IntersectAt@14(line@6, point@16)

After finishing debugging, the method outputs the following for the tree:

tree: [IsLine@5[line](\$AB:line@6[AB]), IsLine@8[line](\$CD:line@9[CD]),
IsLine@12[line](\$EF:line@13[EF]), CC@11[and](\$AB:line@6[AB], \$CD:line@9[CD]),
CC@11[and](\$AB:line@6[AB], \$EF:line@13[EF]), IntersectAt@14[intersect](\$AB:line@6[AB],
\$P:point@16[P])]

This formatting is sort of weird, which may be due to trying to turn the Semantic Tree Nodes that are supposed to be returned into strings, but I think the method does the job. Each element (a relation) is an edge between two objects, each of which has a type and a name. Because of this, I think my olympiad problems may have issues when referring to more abstract objects or objects that are defined based on others (i.e. the circumcircle of *ABC*, for instance), but this might be okay. We'll see how this goes in the next few weeks!