Homework 13 (38 points)

"Response Time Bounds for G-EDF Without Intra-Task Precedence Constraints"

1. What are the primary contributions of this paper? Give bullet points. (2 points)
2. How do the constraints on jobs change in the paper from the general task / job model that we have assumed in the past for multiprocessors? (6 points)
3. Give two real-world examples of systems that could allow multiple jobs of the same task to execute concurrently. For at least one of these, use an example not given in the paper and provide a justification of why it fits this model. (6 points)

4. In 1-2 sentences, what is evaluated in general in Section 5? (4 points)
5. Pick one of the four graphs shown in Figure 2. Describe what is shown (e.g., what does a point on the line represent), the trends that are observed, and how these trends differ for different values of m. Why might we expect (or not expect) to see the trends shown in that graph? (8 points)
5. Based on the above question, what additional experiment would you explore (more values or a different variable / variable combination) and why? What do you expect to observe? (6 points)
6. List two avenues for future work. What might make these open problems especially challenging and/or interesting to study? (6 points)

Feedback

1. How much time did you spend completing this assignment (ignoring interruptions)?
2. How much time did you spend doing the assigned reading (ignoring interruptions)?
3. Any other feedback?