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Georgia Aquarium Design Space Analysis and Optimization

This particular project emphasized how the Georgia Aquarium was a SoS. It goes into detail on how the Georgia Aquarium has been added on to and modified over the years with constant integration. The design team wanted to make aquarium optimal and so they stressed weighing the pros and cons of each decision as part of their systems engineering process. The paper details how an algorithm could spit out the best solution but they need more than that for convincing investors, a practical real world problem. Rather than ending up one final design, they set boundaries and filters so they could narrow the aquarium design down to a set of designs for more flexibility and ease of operation. A bunch of major engineering disciplines are outlined in playing a role in the design and the paper stresses the heuristics that helped form the optimal design. This paper did a good job explaining how they followed the official systems engineering process unlike a lot of other papers I read.