Illini Senior Kingfishers

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Progress Report cp1

During checkpoint 1, we created a Partial RV32I pipelined datapath. Using our paper design Michael and Nathan created a control word struct and instantiated and connected the necessary modules in datapath.sv. Nikki worked on the control unit which takes an instruction and outputs a control word. This control word is passed along the proceeding stages of the pipeline and used to drive signals at each stage. Using the system verilog techniques we’ve learned this semester and in ece 385, creating the datapath and control unit was not overly challenging. However, verifying that the pipeline properly handled the necessary instructions was difficult. We utilized our resources like piazza and office hours. In addition, we reached out to our TA, Jingyang, multiple times for extra help. In this process, we learned that debugging, testing, and verification is more time consuming than we initially thought. This is a valuable lesson that should teach us to start earlier and account for long periods of testing.

Include updated datapath