MNIST Classification on FPGA - PartII

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1 Q1. the fixed-point validation accuracy reported by mnist.py after you've tweaked the SCALE factor

19.08% obtained with a scale factor of 32768

2 Q2. the design latency in cycles

5527616 cycles

3 Q3. the overall device utilization (as Total per Resource).

- BRAM_18K : 160 / 280
- DSP48E : 0 / 220
- FF : 11174 / 106400
- LUT : 32716 / 53200

4 Q4. your measured system speedup over the fixed-point CPU implementation

3.13x

5 Q5. your measured classification accuracy on the 8k MNIST test sample

79.86%

6 Q6. how many multipliers are instantiated in your desing?

257

7 Q7. report the initiation interval of the matrix multiplication loop that you pipelined

2 cycles