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Deliverables

Milestones:

1. Generate artificial data
    a. linear
    b. ramp
    c. arc
    d. w/ noise
    e. w/ multiple outliers

2. Create testbench with artificial and real data

3. Naive implementation of Hampel filter

4. Optimizations on median filter and sliding window for Hampel filter

5. Optimization to meet target interval and clock
    a. Interval = 10 cycles
    b. Clock = 125 MHz

6. Pynq Implementation (AxiStream)

7. Implement Moving Mean filter and compare with Hampel Filter

8. Implement 2D Hampel FIlter

Grading:

A++(extra extra credit): Milestones 1-8
A+ (extra credit): Milestones 1-7
A: Milestones 1-6
A-: Milestones 1-4, & 6
B: 1-4
C: 1-3