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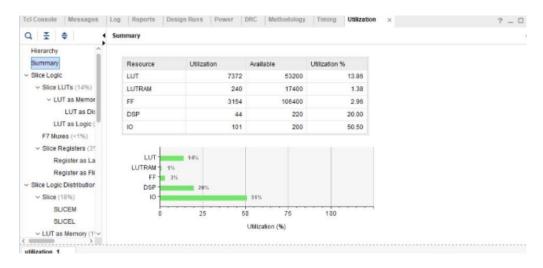
Name: Christopher Crutchfield PID: A97036352

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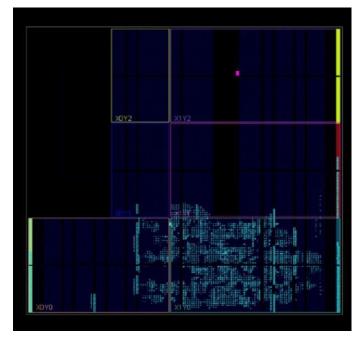
## Project 6: Design of an FIR Filter

In this project, we were to design a Bandpass filter that passes 35-200Hz, which uses the Matlab script provided to determine the correct coefficients, by wrting two modules, which computes the FIR filter output and a module that instantiates FIR filter with SSE module.

Synthesize Result for top module:



By using ZYNQ-7 ZC702 Evaluation Board, we were to obtain the synthesize result as above, which has a utilization of 13.86% for LUT, 1.38% for LUTRAM, 2.96% for FF, 20% for DSP, and 50.5% for IO.



Modules used for project 6: FIR.sv, FIR\_SSE.sv, multiplier\_fp.sv, adder\_fp.sv, SSE.sv, FIR\_SSE\_tb.sv