

# ECSE 425: Computer Organization and Architecture Final Report

**Due April 11th, 2017, 11:59 PM**

The final report is expected to provide:

1. An overview of your processor optimization, including figures (e.g., block diagram, cache or branch predictor structure).
2. A description of your design approach, including testing and evaluation procedure.
3. Detail any optimizations you implemented, evaluation methodology, and results.
4. Conclusions and, if appropriate, post mortem detailing things you would do differently given the opportunity.

You will be graded on (a) the clarity and (b) organization of your report, as well as the (c) technical content you present. Particular emphasis will be placed on the approach taken to evaluate the optimization you implemented for PD5.

## Change Log

- 21-Mar Initial revision.

## Formatting

Your report may be up to four (4) pages long using the IEEE conference proceedings format. *Use of the IEEE format is required.* LaTeX and Word templates are available here:

[http://www.ieee.org/conferences\\_events/conferences/publishing/templates.html](http://www.ieee.org/conferences_events/conferences/publishing/templates.html)

All figures must be included in the four pages; appendices are not permitted. Consequently, you will not be able to include a large number of large screenshots; use the space wisely, redrawing figures for clarity as necessary.

## Recommended Elements

The purpose of your report is to describe the structure of your design, the rationale for your design choices, and the methods you used to refine and test it. You should assume that your audience is familiar with basic processor architecture, but not with the details of the optimization you have implemented. In this context, your report should:

1. Introduce the design problem.
2. Introduce your solution, in general terms, with a block diagram (if applicable).
3. Describe in some detail the different components of your system, including why you implemented particular elements.
4. Describe how you chose particular parameters and how you evaluated the system.
5. Describe your results and explain the behavior you observe.

6. Make recommendations based on your experience; would you do anything different if you were able to do the project over?

Figures should be included only if they support some aspect of the above; any figures that you include must be described. Annotated, cropped figures work best: screenshots are infrequently valuable by themselves.

### **Grading**

This portion of the project will be graded as follows, out of 25 points:

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|--|--------|
| 1. Clarity—e.g., grammar, syntax, quality of figures                   | 5 pts  |
| 2. Organization—e.g., structure and flow of the report                 | 5 pts  |
| 3. Technical content—e.g., design, evaluation methodology, and results | 15 pts |

### **Hand In Procedure**

Hand in, via MyCourses, in a single PDF.