ECE571: Advanced Microprocessor Design – Homework 2
Fall 2024

Due: Friday 20 September 2024, 12:00pm

Create a document that contains the data and answers described in the sections below. A .pdf or .txt file is preferred but I can accept MS Office or Libreoffice format if necessary.

1. Read the paper *Producing Wrong Data Without Doing Anything Obviously Wrong!* by Mytkowicz, Diwan, Hauswith and Sweeney (ASPLOS 2009).

   `https://users.cs.northwestern.edu/~robby/courses/322-2013-spring/mytkowicz-wrong-data.pdf`

2. We will discuss this paper in class on Friday the 20th so you might want to wait on reading it until closer to that time.

3. Answer the following questions:

   (a) What is measurement bias?

   (b) Why can changing the UNIX environment size change program performance?

   (c) What are two of the suggested ways that can be used to avoid measurement bias?

   (d) In Homework 1 we did measurements with the link order reversed. Did we see results similar to the ones they saw in the paper?

4. Submitting your work.

   - Create the document containing the answers to the questions asked.
   - Please make sure your name appears in the document.
   - e-mail the file to me by the homework deadline.