

# Milestone 3

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## Assignment Goal

The goal of this assignment is to help you understand and analyze the main components of a senior project. This can help you later to understand, analyze, develop, and improve your own senior design project.

## Tasks for this assignment

When you enroll in senior projects you will be required to complete various tasks. Tasks for this assignment are:

- Approach a *faculty* member who could help guide you through the successful completion of a senior project.
  - Ask if they have a project you could work on.
  - If you have a project in mind, explain it to them and ask for their feedback.

If you don't get the help you need, approach another member of the faculty. Repeat as needed.

- In senior projects you will be required to write several software engineering documents that describe what is to be done for your project and how you plan to do it. Dr. Chan has an excellent collection of guideliners and other resources to help students successfully complete a senior project: See his projects page and read these documents:
- Guidelines for Role of Faculty Sponsors
- Guidelines for a Project plan

- Guidelines for your Project Web Sites
- Guidelines for Milestone Progress Evaluations
- Guidelines for Requirements, Design, Test documents
- Guidelines for Scopes for teammates
- Guidelines for Demo Video and User/Developer Manual
- the intellectual property policies in the student handbook
- the intellectual property policies in the faculty handbook
- the COES Student Design and Research website
- Write a report based on your interviews and readings following this outline:
  1. Your name: **Spencer Hirsch**
  2. The names of faculty member(s) you approached: **Dr. Hohlmann**
  3. Did they have projects they were interested in having you help? If so, summarize their project(s).

I am currently doing research with Dr. Hohlmann's CMS group. I am working closely with a graduate student on the analysis of proton-proton collisions. We just completed hyper-parameter tuning a machine learning model to accurately predict dimuon pairs from off-shell parent particles. There are many different groups within Dr. Hohlmann's HEP research group and it is always interesting to hear about what everyone is working on. Other pairs are working on hardware, while others like myself are working on analysis.

4. Did you tell them about a project you would like to do? If so, what was their reaction?

I don't have any ideas as of right now, I've begun putting greater thought into what I want to do.

5. Based on your reading of the Guidelines the intellectual policies in the student and Faculty handbooks, and exploring the college website for design and research write a paper that describes what you have learned and will be useful to you in creating your own Senior Project.

6. Describe one or more projects you would like to pursue as a senior. Do you have teammates?

As of right now, I don't have any of my own ideas, however, I do like the idea of continuing to work with Dr. Hohlmann's HEP group to contribute more of my knowledge of computer science to the physics-oriented group. Yes, I do have potential teammates for a Senior Design project.

## **Submitting your report**

Your report must be double-spaced, written using 12-point font, with 1-inch top, bottom, left & right margins, store in PDF format, and submitted on Canvas.