Project Proposal: CSPB 3112 – Christopher Taylor

- Vision statement: how will this project expand your professional skills and knowledge?
  - **I will be gaining knowledge in one of the most in-demand languages (Python) and one of the most in-demand careers (data science) to not only make myself more capable, but also more enticing to potential employers.**
- Motivation: why is this project important to you?
  - **With my background in Molecular Biology research, I know the high demand for data scientists. With technological advances in research equipment and instruments, Biology labs are now producing more (mountains) of data than Physics labs (historically infamous for the sheer volume of data). My data science skills coupled with Biology knowledge and experience will be highly sought after. Moreover, I'll be helping medical research that could enhance people's lives, possibly even save them.**
- Specific and measurable goals (learning objectives) for the project.
  - **Finishing the courses focused on Python and Data Science that I've found on LinkedIn. Many, if not all, of the courses come with a certificate of completion. I'll start with Python Essential Training (4.5 hours) and Learning Python (3 hours) to understand the basics of the language, then move on to more advanced concepts with a focus on Data Science, Python for Data Science Essential Training parts 1-2 (10 hours), after that move to Advanced Python and the Data Science of Healthcare, Medicine, and Public Health. If I get through all of that and still have time to spare, I'll probably look at Master Excel for Data Science (16 hours).**
- Risks to project completion, possibly including:
  - new language
    - **Python is new-ish. I've had a bit of training in CSPB 1300, but I could definitely use a lot more practice, and since this is one of the primary languages used across different industries, gaining ability with it would never hurt**.
  - no prior experience working with the subject or technology
    - **Data science is all new to me as well, so this could definitely be a challenge. Gotta learn it sometime though, so might as well start early.**
  - project requires of some resources that may be difficult to obtain
    - **The worst part is that I have to pay for a subscription to LinkedIn Learning (40/month or 240/year)**
- Mitigation Strategy for the risks listed above
  - **Not really sure on this part. Practically everything in computer science is new to me, since I'm only in semester 2, so I'm going to have to keep my head down and grind it out as best as I can.**
  - **I might have to do a bit of math refreshers if I'm struggling to understand the math behind Data Science, but I won't really know until I get into it.**
- Project Assessments - provide a list of evaluation criteria for the project.
  - Describe how you will know that your project is completed and that you have met your goals.
    - **I will be progressing through the courses, passing the quizzes, getting certificates for completion.**
    - **Also, I'll become more capable and knowledgeable on both Python AND data science in the process.**
- Project portfolio link:
  - https://github.com/Bockslunch/CSPB3112_Project.git