**Data Science Bootcamp Project Proposal**

**MODELING EMPLOYMENT OF WOMEN AND PEOPLE OF COLOR IN PROFESSIONAL**

**AND MANAGERIAL POSITIONS, 2010 – 2030**

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Using data from the Bureau of Labor Statistics’s (BLS) Current Population Survey, we propose to examine the progress women, African-Americans, Latinx-Americans, and Asian-Americans have made into higher level jobs in the U.S. over the past 10 years and how well we can expect them to be represented in those occupations ten years from now.

 We will use the BLS’s annual labor force reports to answer the following questions:

1. How does the representation of women and people of color (POC) in professional and managerial positions compare to their representation in the labor force as a whole?  Is that relationship different than that of men and white people in those jobs compared to their representation in the labor force as a whole?
2. If women or POC are represented in higher level positions in a greater or lesser proportion than their share of the labor force, can we identify factors that might explain the difference.  For example, is representation in professional and managerial positions associated with:
   1. Educational attainment (i.e., Do whites and men in higher level jobs have the same, higher, or lower educational attainment as women and POC in those positions?)
   2. Industry:  (Are there certain industries more amenable to progress by women and POC?)
   3. Age: (Is there a difference in ages of men and women in professional and managerial jobs or between whites and POC?)
   4. Veteran status: (Are women and POC more or less likely to have served in the armed forces, and is there any correlation between military service and job level?
   5. Youth employment: (Is there a correlation between employment of women and POC between the ages of 16 and 24 and their levels of representation in higher level jobs?)
   6. Family status: (Does the presence of spouses and/or children under the age of 18 correlate with the difference in representation of men and women in higher level jobs?)
3. Assuming trends remain the same, what do we predict the levels of representation of women and POC in professional and managerial positions will be in 2030?
4. Based on our findings, what recommendations can we make for further research?