### Career Relevance Justification

My career thus far has been operations and electrical (mostly controls) engineering. The Body Focused Repetitive Behaviors (BFRP) dataset includes measurements from an IMU, a thermistor, and a time-of-flight (TOF) measurement unit. I’ve worked in controls before where I’ve had to spec and install similar types of measurement units. Given the use of an IMU and similar measurement units, the dataset seems matched to my career experience and goals.

The exact business/research question asked:

Can you use movement, temperature, and proximity sensor data to differentiate between body-focused repetitive behaviors (BFRBs), like hair pulling, from non-BFRB everyday gestures, like adjusting glasses?

will guide the development of better tools for detection and treatment of BFRBs.

The dataset explores the difference between using just an IMU and adding the data from the thermistor and TOF unit, and whether or not the addition of additional sensors is worth the added expense and complexity. Also, to guide the development of better tools for detection and treatment of BFRBs. The thermistor and TOF units were not analyzed too thoroughly in the midterm project.

Some potential career directions this dataset could lead towards could be development of wearable technologies like wristbands with similar types of sensors. These wristbands could be used in developing human-machine interfaces (HMIs) via gesture recognition. Another potential career direction could be in advancing IMU technology or use.