My project will be working with weather modeling software, particularly the Cligen package from Purdue University. There will be both a parallelization aspect and a pedagogical aspect to this project.

The parallelization component will involve working with the statistical functions (chi-squared, gamma, etc.) and adapting them to run on a compute cluster. To simplify my life, I plan to rewrite the functions from FORTRAN to C, and link to them using the compiler.

The pedagogical aspect will involve developing a user interface for Cligen, that will interpret the data, and also allow changing specific data points and displaying the change in the weather model. This component will likely be written in either Java or a CGI to be as cross-platform as possible.