PNNL’s Applied Statistics and Computational Modeling section is most aligned with my skill set and research interests. My application interests at PNNL are wide, including, energy, and national security applications. Many of the publications in this section of PNNL were biological. During Summer 2016 I attended the University of Washington’s Summer Institute in Statistical Genetics, which exposed me to general methods such as GWAS, QTL mapping, and Network and Pathway Analysis. In the Consulting Seminar at MSU, I am now working on analyzing pea genetic data.

Methods and topics at PNNL of interest include optimal designs, both classical and Bayesian methods, probability theory, simulation, decision analytics, algorithms, and optimization. Highlights of coursework and experiences so far include probability theory, classical and Bayesian methods, multivariate methods, generalized linear models, hierarchal modeling, data visualization, working with multidisciplinary, and writing reproducible reports with knitR and Rmarkdown. Coursework has combined theory and application that will ideally contribute to PNNL’s mission to develop new methods. Teaching has provided experience in presenting which would assist in conference presentations. My Master’s writing project will extend my Bayes’ course project mentioned above to a spatial point process hierarchal model with potentially a non-normal response.

Providing and developing quality and efficient analyses to solve current and future national problems as a Post-Master’s RA would be a rewarding opportunity. This RA would provide experience to inform the next step of long term employment for both PNNL and myself. At the core, I am looking for an opportunity where my work will be used in important decision that affects people, allows collaboration with a variety of specialty fields and experienced statisticians, is challenging, and that promotes continual growth in knowledge. I believe PNNL will provide that opportunity and appreciate your consideration of my application.