# P.U.R.E. Research Plan Form

## Mentee Information

Name: Joshua Robinson  
Date: 10/1/2015  
NetID: jprbnsn2  
Email: jprbnsn2@illinois.edu  
Year (F, S, J, Sr): S  
Major: Computer Science

## Mentor Information

Name: Vincent Bindschaedler  
Date: 10/1/2015  
NetID: bindsch2  
Email: bindsch2@illinois.edu  
Department: Computer science  
Faculty Advisor: Carl Gunter

## Fall 2015 Research Plan

1) Write a brief outline of your research plan:

My research plan will be to implement a distributed cryptographic library using a modern or future cryptographic primitives. To begin, I will read up on all the newer cryptographic primitives that have not been widely implemented and choose one to incorporate into my library. After this I would search for other cryptographic primitives (they don’t have to be modern) that complement the chosen cryptographic primitive. Then I would find a protocol that fits this library and then implement the library testing extensively on its security.

2) What do you hope to learn and achieve by the end of the semester?

I hope to get a grasp of how research is like as well as understanding more modern or future concepts of cryptography and computer security. I also wish to write a professional paper about my work.