Final Project for CS 372

***Erase this*** *before you submit: You are more than welcome to bullet point or tabulate everything like in the first heading and built-in tests. I’m going to be “checking” off what I can from the report. The easier it is to find, the less likely a requirement will be missed. Team only parts are in green.*

*[Your name]*

# Algorithm, Application, Language Choice

* Knuth-Morris-Pratt
* String Matching
* C++

# Where It Is Used

*[Brief description of the class of problems your algorithm(s) solves]*

## Other applications

* *[at least 2 other possible applications for your algorithm]*

## Alternative algorithms

* *[at least 2 other possible algorithms for your application]*

## Reason for choice

*[explain why you picked the algorithm you did]*

*[1-2 sentences is typically sufficient for this section]*

# How Your Project Works

*[. Pretend you are explaining how your project works to a Programming II freshman. 1-3 paragraphs will likely be sufficient, but ask if you are unsure This is mostly to make sure that you understand what you did and didn’t just copy and paste code from somewhere.]*

*(Team projects are expected to have more detail. You must “chunk” the algorithm and explain each part.)*

# Run time

*[Name and explain why the project has the given big-O run time as the theoretical run time* **for your implementation***]*

(team only): Formally prove the run time through instruction counting, probability, or recursion analysis depending on your problem. You **will need** to use pseudocode to prove this.

# Program usage or README

[OPTIONAL, and only used if needed]

# References

[Where did you find the explanation of your code]

[Tutorials]

[Etc.]