CS 263 : Runtime Systems
Analyzing performance of Rust with other languages
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1 INTRODUCTION

Rust has been voted as the most loved programming language for last 2 years by Stack Overflow Developer Survey. [2] For last few months I have been listening about the *wonders* of Rust programming language. In fact I have read many articles and blogs to understand where it wins and loses with other programming languages [3]. There are many organizations like Mozilla, Dropbox , Coursera using Rust. With so much hue and cry about the language, I intend to not only learn the language but also self evaluate it with other known languages to know whether the claims by all the blogs and literature are true or not.

2 PROCEDURE FOR EVALUATION

2.1 Selecting the competitors

My limited knowledge, till now informs me that Rust works best when doing system programming. Other languages I have worked upon earlier in system programming are C & C++. Although they seem to be viable options to pick as competitors for Rust, I would like to do in-depth research on which other languages can be good to test and compare with Rust. I envision to pick at least 2 more programming languages to compare Rust's performance with.

2.2 Building multiple programs to test & Benchmarking

After choosing the competitors, I will go ahead and start writing algorithms which is going to be an interesting challenge as I need to write programs which test various aspects of the programming languages. Benchmarking is is the most critical step and one I am not at all aware about. As mentioned on the course website , there are some tools available on-line to benchmark programming language. I will use all the tools mentioned and also explore new tools as mentioned in [1] for the same purpose.

References

[1] Overview: http://attractivechaos.github.io/plb/.

[2] Stack overflow developer survey 2017.

[3] Janette Ciborowski. Why rust is the most loved language by developers mozilla tech medium, Apr 2017.