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CS:5850 Programming Language Foundations
Final Project Proposal
Due: November 15, 2016

Proposal

My plan is to work on the suggested "Implementing pure lambda calculus" project. My implementation would be done in Haskell, encoding the lambda terms as a Haskell datatype and using De Bruijn indices to avoid variable capture. The output would be some form of LaTeX markup, showing syntax trees or the terms (or both!). My plan for parsing input is to use the Haskell Parsec library, which simplifies the creation of simple language parsers.

Preferred Presentation Dates

1. Dec 1
2. Dec 8
3. Dec 6

Getting Started

To get started on my project, I have explored both how to implement a simple parser in Haskell and methods for implementing De Bruijn indices. I installed the Parsec library and looked over code for implementing a parser for a basic calculator language with it. Along with this, I have been considering how to implement reduction in a way to facilitate showing each term from beginning to normalized.