CS 639A Progress Report 1

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First & Second Sprint: Brief Progress

We started investigating the problem in **three splits** for our **Pre-RL Stage Work**. The most **time-consuming** part was to migrate the outdated packages used in some the tools chosen by us for delivering the project. We gained a fair idea on how **embedding spaces** are use and the novelty in **inst2vec** tool. We started running the **inst2vec** tool to generate an embedding for our debloating sample space, like **call-site** information, **function arguments**, **type parameters** etc as described in Paper 2.

Stage 1: Split 1

- Completed the setup for LLVM-IR generation, clang tool, **spcl/ncc** (inst2vec) tool.
- Completed the setup for OCCAM tool, Chisel tool & Trimmer tool
- We are in the middle of running the inst2vec tool and using the public data-sets
 available to train it.

Stage 1: Split 2

- We found 2 more features where **program debloating** may be possible.
- We understood how to write specification for the script used by **Chisel** tool as in Paper 1

Stage 1: Split 3

 $\bullet\,$ Bloated Sample collection and preparation started.