MANASVI SAXENA

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EDUCATION

B.S. Computer Science, University of Illinois – Urbana Champaign May 2015

· Thesis - Semantics Based Debugging in the K Framework.
Advisor - Prof. Grigore Roşu

RESEARCH AND EXPERIENCE

Formal Systems Laboratory, University of Illinois August 2014 - May 2015
Undergraduate Researcher *Urbana, IL*

· Developing a semantics debugger for the K Semantics Framework.
· K (github.com/kframework) is a rewrite based semantics framework in which programming languages can be defined using configurations, computations and rules.
· Debugger helps users find bugs in formal semantics defined in K. Allows users to step through the execution of their program, examine the state space, configurations, and rules among other features.

Coordinated Science Lab, University of Illinois Summer 2014
Summer Intern *Urbana, IL*

· Worked on visualization of a large dataset containing records of faulty medical devices by the Food and Drug Administration (FDA).
· Created an interactive web application that displays the visualizations using PHP/Javascript.

CS 125, University of Illinois Fall, 2012
Course Assistant for CS 125 (Intro to Computer Science) under Prof. Lawrence Angrave *Urbana, IL*

· Conducted weekly office hours during which helped students with general doubts regarding Java programming and programming concepts such as recursion, sorting.

PROJECTS

Fareshare

· A web application that helps users carpool and share the cost of travel. Co-founder and part of the back-end team. Implemented the user-authentication and ticketing systems in PHP.

StartHub

· A web application that aims at building a community encouraging collaboration between startups, research groups and students at the University of Illinois. Implemented the application in python/Django.

PyGraphLib
github.com/msaxena2/pygraphlib

· Implemented a lightweight python library for creating directed/undirected and weighted/unweighted graphs. The library enables the user to perform operations, such as shortest path search, on the graphs.

CERTIFICATIONS

Oracle Certified Professional Java SE 6 Programmer

TECHNICAL SKILLS

Programming Languages	Java, Python, C, C++, OCaml, PHP
Web Development	SQL, Django, HTML
Miscellaneous	Git, Intellij IDEA, Eclipse, PyCharm, LaTeX