

Education

- **University of Waterloo, Canada**
Master of Mathematics in Computer Science (*Fall 2013 - current*)
CGPA : 93.2%
- **Indian Institute of Technology, (Banaras Hindu University) Varanasi, India**
Bachelor of Technology in Computer Science and Engineering (*2006 - 2010*)
CGPA : 8.69/10

Work Experience

- **Graduate Research Assistant, University of Waterloo, Canada.** (*Sep 2013 - current*)
My current research deals with finding interesting patterns in graphs arising from program traces. The broader goal is to design a practical algorithm for efficient pattern mining in special graph classes.
- **Senior Member Technical Staff, Mentor Graphics, Noida, India.** (*July 2010 - Aug 2013*)
Worked with Veloce compiler team. Responsibilities included developing efficient solutions for Mentor's next generation emulation platform.

Selected Projects

- **Computation of Treewidth** *Google Summer of Code 2014, OGDF* [1]
Treewidth is a metric to measure tree-likeness of a graph. The goal of the project was to implement some heuristics for computing treewidth and tree-decomposition of a graph and efficiently solve some NP-hard problems on graphs of bounded treewidth.
- **Shared Libraries on NUMA** *Course Project*
In this project, we performed a holistic analysis of shared library performance on NUMA architectures. We wrote an evaluation paper[2] summarizing our observations.
- **A test framework for scummVM's subsystems** *Google Summer of Code 2010, ScummVM* [3]
The objective of this project was to enhance the ScummVM unit testing infrastructure by implementing a Game Engine that could invoke and test various ScummVM subsystems in an integrated and non-isolated manner.

Technical Skills

- **Programming languages:** C++(Proficient), C (Good), Perl (Good), shell-scripts (Good), php/java (basic)
- **Operating systems:** Linux (Ubuntu evangelist), Windows
- **Programming Tools:** GDB (Proficient), version control (git, svn, cvs), awk, sed, etc.

Miscellaneous

- **Teaching assistant** for CS341 : Algorithms; CS350 : Operating Systems and CS230 : Introduction to Computer Systems.