

SUMMARY

- **M.Sc, McGill University** with research in **Compilers and Program Analysis & Transformations** supervised by **Prof. Laurie Hendren**.
- 3 years of industry experience with **Infosys Technologies** in deployment **performance management** for large-scale systems and **development**(in C).
- Internship with **Sun Microsystems** as **Student Tech Lead, APAC region/Campus Ambassador**.
- Experience of working (part-time) with a funded **e-commerce startup**, developing social network interfaces.
- Extensive **programming experience (C and Java)**.
- Experience in all areas of static Compilers including **program analysis and transformations, compiling dynamic languages and programming language design**.

Associated with some of the best people, schools and companies in Computer Science

EDUCATION

- McGill University** August 2013 (expected)
M.Sc. in Computer Science (CGPA: 3.56/4.00) Montreal, QC, Canada
- Awarded the **summer DFW scholarship for top performing** International Graduate students.
 - Gave a grad seminar on X10 and compiling MATLAB to X10 .
- SASTRA University** June 2008
B.Tech. in Computer Science & Engineering (CGPA: 8.93/10.00) Thanjavur, India
- For my B.Tech project, I developed DISCODE: A decompiler targeting C for OpeSolaris on x86.
 - Won the **dean's list scholarship for being in the top 10%** of the University.
 - **Co-founded and led GLOSS**(GNU Linux & Open Source at SASTRA) club of the University.
 - **Executive member and member of editorial team** of Student Association of School of Computer Science.

Graduate courses - Compiler Design, Program Analysis and Transformations, Advanced Techniques for Compiling Dynamic Languages, Distributed Systems, Computer Networks, Recommendation Systems for Software Engineering
Active participation in extra-curricular activities

EXPERIENCE

- McGill University** September 2011 - Present
Research and Teaching Montreal, QC, Canada
- Research Assistant, **SABLE Lab** - My research interests include **program analysis & transformation techniques** to compile dynamic programming languages to static object-oriented and HPC languages. My research is **supervised by Professor Laurie Hendren**. As a part of my thesis I am developing MIX10 : a MATLAB to X10 (**A new HPC language by IBM research**) **compiler**. I get direct assistance from X10 **team at IBM Thomas J. Watson Research Center**.
 - Teaching Assistant - COMP 621 Program Analysis and Transformations (Winter 2013).
 - Teaching Assistant - COMP 520 Compiler Design (Fall 2012).
- Infosys Technologies Ltd.** September 2008 - August 2011
Senior Systems Engineer Pune, India
- **Managed** the offshore **deployment performance management** team for AT&T online and mobility.
 - **Consulted on 8 projects** and they all exceeded performance targets under peak loads.
 - Contributed to the **SEO recommendation system** used by the **Infosys global marketing team**.
- MySmartPrice** October 2010 - July 2011
Developer (part-time) Pune, India
- MySmartPrice is an Indian **e-commerce startup** that provides a price comparison engine for online stores. I worked with the founders over weekends and brainstormed design and implementation strategies
 - I Wrote the initial **social network interfaces** for facebook and twitter.
- Sun Microsystems** January 2007 - May 2008
Intern - Student Tech Lead, APAC region/Campus Ambassador Bangalore, India
- I was promoted from Campus Ambassador to one of **only 5 Tech Leads worldwide**.
 - Conducted webinars and developed tutorials for Campus Ambassadors worldwide.
 - As a Campus Ambassador I was one of **only 27 Campus Ambassadors across India**.
 - **Taught** a certificate course on **OpenSolaris**.
 - Conducted several seminars on OpenSolaris and other Sun technologies in SASTRA and nearby Colleges.

Research, Teaching, Compilers, Program analysis, Program transformation and optimization techniques, Program language design, Code generation, C, Java, JstAdd, Flex, Bison, Beaver, MATLAB, X10

Management, Software development, Software engineering, SEO, Java, HP LoadRunner

e-commerce, startup, social network APIs, PHP, Apache, MySQL

Teaching, Evangelism, Open Source culture, OpenSolaris

PROJECTS

- isComplex value analysis for MATLAB programs: Analysis to identify if a value is complex or real.
- Open source license recommendation engine.
- WIG (a subset of <bigwig> language) to PHP compiler (in team of two).
- Tweetinawhile: A web-based tweet scheduler.
- DotGyan: A server side search enhancement tool for web browsers.
- Damruu: A RSS feed reader and chronologically based feed merger.

Data flow analysis, Open Source licenses, Compilers, Twitter API, OAuth, RSS, PHP, C, Javascript

PUBLICATIONS

Technical Report

- Vineet Kumar and Laurie Hendren. First steps to compiling MATLAB to X10. Technical Report sable-2013-1, School of Computer Science, McGill University, Mar. 2013. <http://www.sable.mcgill.ca/mclab/mix10/techrep.pdf>.