

## SUMMARY

- **M.Sc, McGill University** with research in **Compilers and Program Analysis & Transformations** supervised by **Prof. Laurie Hendren** and assisted by the **X10 team at IBM Thomas J. Watson Research Center**.
- 3 years of industry experience in software development as **Senior Systems Engineer** with **Infosys Technologies Ltd.**.
- 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**.

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

## EDUCATION

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| <p><b>McGill University</b><br/><i>M.Sc. in Computer Science (CGPA: 3.56/4.00)</i></p> <ul style="list-style-type: none"> <li>• Awarded the <b>summer DFW scholarship for top performing</b> International Graduate students.</li> <li>• Gave a grad seminar on X10 and compiling MATLAB to X10 .</li> </ul> <p><b>SASTRA University</b><br/><i>B.Tech. in Computer Science &amp; Engineering (CGPA: 8.93/10.00)</i></p> <ul style="list-style-type: none"> <li>• For my B.Tech project, I developed DISCODE: A <b>decompiler</b> targeting C for OpenSolaris on x86.</li> <li>• Won the <b>dean's list scholarship for being in the top 10%</b> of the University.</li> <li>• <b>Co-founded and led GLOSS</b>(GNU Linux &amp; Open Source at SASTRA) club of the University.</li> <li>• <b>Executive member and member of editorial team</b> of Student Association of School of Computer Science.</li> </ul> | <p>August 2013 (expected)<br/>Montreal, QC, Canada</p> <p>June 2008<br/>Thanjavur, India</p> |
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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

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| <p><b>McGill University</b><br/><i>Research and Teaching</i></p> <ul style="list-style-type: none"> <li>• Research Assistant, <b>SABLE Lab</b> - My research interests include <b>program analysis &amp; transformation techniques</b> to compile dynamic programming languages to static object-oriented and HPC languages. My research is <b>supervised by Professor Laurie Hendren</b>. As a part of my thesis I am developing MIX10 : a <b>MATLAB to X10 (A new HPC language by IBM research) compiler</b>. I get direct assistance from the <b>X10 team at IBM Thomas J. Watson Research Center</b>.</li> <li>• Teaching Assistant - COMP 621 Program Analysis and Transformations (Winter 2013).</li> <li>• Teaching Assistant - COMP 520 Compiler Design (Fall 2012).</li> </ul> <p><b>Infosys Technologies Ltd.</b><br/><i>Senior Systems Engineer</i></p> <ul style="list-style-type: none"> <li>• <b>Led</b> the offshore <b>deployment performance management</b> team for AT&amp;T online and mobility.</li> <li>• <b>Worked on 8 projects</b> and they all exceeded performance targets under peak loads.</li> <li>• Contributed to the <b>SEO recommendation system</b> used by the <b>Infosys global marketing team</b>.</li> </ul> <p><b>MySmartPrice</b><br/><i>Developer (part-time)</i></p> <ul style="list-style-type: none"> <li>• MySmartPrice is an Indian <b>e-commerce startup</b> that provides a price comparison engine for online stores. I worked with the founders over weekends and brainstormed design and implementation strategies</li> <li>• I Wrote the initial <b>social network interfaces</b> for facebook and twitter.</li> </ul> <p><b>Sun Microsystems</b><br/><i>Intern - Student Tech Lead, APAC region/Campus Ambassador</i></p> <ul style="list-style-type: none"> <li>• I was promoted from Campus Ambassador to one of <b>only 5 Tech Leads worldwide</b>.</li> <li>• Conducted webinars and developed tutorials for Campus Ambassadors worldwide.</li> <li>• As a Campus Ambassador I was one of <b>only 27 Campus Ambassadors across India</b>.</li> <li>• <b>Taught</b> a certificate course on <b>OpenSolaris</b>.</li> <li>• Conducted several seminars on OpenSolaris and other Sun technologies in SASTRA and nearby Colleges.</li> </ul> | <p>September 2011 - Present<br/>Montreal, QC, Canada</p> <p>September 2008 - August 2011<br/>Pune, India</p> <p>October 2010 - July 2011<br/>Pune, India</p> <p>January 2007 - May 2008<br/>Bangalore, India</p> |
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Research, Teaching, Compilers, Program analysis, Program transformation and optimization techniques, Program language design, Code generation, Java, MATLAB, JstAdd, Flex, Bison, Beaver, MATLAB , X10

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

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

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Teaching, Evangelism, Open Source culture, OpenSolaris

## PUBLICATIONS

- Technical Report**
- Vineet Kumar and Laurie Hendren. First steps to compiling MATLAB to X10. TR-sable-2013-1, School of Computer Science, McGill University, Mar. 2013. (*Paper submitted for X10 Workshop (X10'13) at PLDI'13.*)

PROJECTS

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- 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).

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