

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**.

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

EDUCATION

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| McGill University
<i>M.Sc. in Computer Science (CGPA: 3.56/4.00)</i> | August 2013 (expected)
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
<i>B.Tech. in Computer Science & Engineering (CGPA: 8.93/10.00)</i> | June 2008
Thanjavur, India |
| • For my B.Tech project, I developed DISCODE: A decompiler targeting C for OpenSolaris 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

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| McGill University
<i>Research and Teaching</i> | September 2011 - Present
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 the 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.
<i>Senior Systems Engineer</i> | September 2008 - August 2011
Pune, India |
| • Led the offshore deployment performance management team for AT&T online and mobility.
• Worked 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
<i>Developer (part-time)</i> | October 2010 - July 2011
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
<i>Intern - Student Tech Lead, APAC region/Campus Ambassador</i> | January 2007 - May 2008
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, Java, MATLAB, JastAdd, Flex, Bison, Beaver, MATLAB , X10

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

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

Teaching, Evangelism, Open Source culture, OpenSolaris

PUBLICATIONS

- **Technical Report (Paper accepted)**
- 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 accepted for presentation at the X10 workshop at PLDI 2013 and for ensuing publication in the ACM Digital Library*)

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).

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