

VINEET KUMAR

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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).

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

- 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**.

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

- 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.

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

- 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.

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>.