VINEET KUMAR

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SUMMARY

- I am seeking a **full-time** software development position **starting February 2014**.
- **M.Sc Computer Science**, McGill University | **3+ years** of relevant **industry experience** in software development and programming (C and Java) | Specialization in compiler design, program analysis and program transformations.
- Interests - Compilers, Computer networks, Recommender systems, Social networks, E-commerce, High-performance computing.
- Skill set
  - Programming languages - Expert: C, Java, X10 , MATLAB | Proficient: PHP | Prior experience: Python, Javascript.
  - Software development - GNU/Linux, Windows 7 | MySQL | Eclipse | GCC, OpenJDK 7, JUnit, GDB | Git, SVN | Vim, LATEX.
  - Web development - Apache HTTP server, HTML, JSON, XML, RSS, APIs: Facebook, Twitter, Paypal, SEO, Amazon EC2.
  - Compiler design tools - Flex, Bison, Beaver, JastAdd.

EDUCATION

McGill University   December 2013 (expected)
M.Sc. in Computer Science (CGPA: 3.56/4.00)   *Montreal, QC, Canada*
- Selected for presentation at 12th **Compiler-Driven Performance Workshop** at **CASCON 2013**.

SASTRA University   June 2008
B.Tech. in Computer Science & Engineering (CGPA: 8.93/10.00)   *Thanjavur, India*
- 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.

PUBLICATIONS

- Vineet Kumar and Laurie Hendren. First steps to compiling MATLAB to X10 . In Proceedings of the 2013 ACM SIGPLAN X10 Workshop, **X10 '13** co-located with **PLDI 2013**.

EXPERIENCE

McGill University   January 2012 - Present
Research and Teaching   *Montreal, QC, Canada*
- **Research Assistant, Sable Lab** - My research is about static compilation and program analysis for dynamic languages.
  - Designed and developed a MATLAB **compiler for high-performance computing** via X10 language under supervision from **Prof. Laurie Hendren** and with direct inputs from X10 **design team at IBM T.J. Watson Research Center**.
  - Achieved **20-40% performance improvements** over commercial MATLAB implementation (for sequential code).
  - Discovered a critical shortcoming in the X10 Java backend.
- **Teaching Assistant** - Program Analysis and Transformations, Compiler Design, Introduction to Computer Systems.

Infosys Technologies Ltd.   September 2008 - August 2011
Senior Systems Engineer   *Pune, India*
- I **led** a team of 4 for **deployment performance management** for AT&T's online and mobility frontend and backend applications.
  - My team's job was design and development of performance tests, analysis of results and troubleshooting performance issues.
  - **Worked on 8 projects** and they all exceeded performance SLA under peak loads.
- Part of the development team for **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 helped the co-founders with designing the core crawler algorithm.
  - 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 being one of **only 27 Campus Ambassador across India** to one of **only 5 Tech Leads worldwide**.
  - My job was to conducted webinars and develop tutorials for Campus Ambassadors worldwide.
  - **Taught** a certificate course on **OpenSolaris**.

PROJECTS (COURSE AND PERSONAL)

- Discode: A decompiler for C on OpenSolaris for intel x86 (B.Tech project). (*url*)
- Analysis to identify if a value is complex or real for MATLAB programs (Course project for Program analysis). (*url*)
- FreeMeLegal: An Open source license recommendation engine (Course project for Recommender systems). (*url*)
- WIG (a subset of <bigwig> language) to PHP compiler (Course project for Compiler design in a team of two).
- Performance Analysis and comparison of ZeroMQ and TCP (Course project for Computer networks in a team of three).
- Tweetinawhile: A web-based tweet scheduler.
- DotGyan: A server side browser independent search enhancement tool for web pages with textual content. (*url*)