
SUMMARY

- Seeking a **full-time** software development position **starting May 2014** (or later).
- **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.
- Programming languages - *Expert*: C, Java, X10, MATLAB | *Proficient*: PHP | *Prior experience*: Python, Javascript.

EDUCATION

McGill University*M.Sc. in Computer Science (CGPA: 3.56/4.00)*December 2013 (expected)
Montreal, QC, Canada

- Won the summer differential fee waiver for the top-performing international students.

SASTRA University*B.Tech. in Computer Science & Engineering (CGPA: 8.93/10.00)*June 2008
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 AND TALKS

- Vineet Kumar and Laurie Hendren. MIX10 : Compiling MATLAB for high performance computing via X10 . 12th **Compiler-Driven Performance Workshop** at **CASCON 2013**.(url - bit.ly/1hXms8N)
- 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**.(url - bit.ly/18owBUI)

EXPERIENCE

McGill University*Research and Teaching*January 2012 - Present
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.*Senior Systems Engineer*September 2008 - August 2011
Pune, India

- **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*Developer (part-time)*October 2010 - July 2011
Pune, India

- MySmartPrice is an Indian **e-commerce startup** that provides a price comparison engine for online stores.
 - Helped the co-founders with designing the core crawler algorithm.
 - Wrote the initial **social network apps** for facebook and twitter.

Sun Microsystems*Intern - Student Tech Lead, APAC region/Campus Ambassador*January 2007 - May 2008
Bangalore, India

- Promoted from being one of **only 27 Campus Ambassador across India** to one of **only 5 Tech Leads worldwide**.
 - Conducted webinars and developed tutorials for Campus Ambassadors worldwide.
 - **Taught** a certificate course on **OpenSolaris**.

OTHER PROJECTS

- **Discode**: A decompiler for C on OpenSolaris for intel x86 (B.Tech project, individual).(url - bit.ly/15rZr2n)
- Analysis to identify complex numerical values for MATLAB programs (COMP 621 Program analysis, individual).(url - bit.ly/15SYKmC)
- **FreeMeLegal**: An Open source license recommendation engine (COMP 762 Recommender systems, individual).(url - bit.ly/19yJPkU)
- **WIG** (a subset of <bigwig> language) to PHP compiler (COMP 520 Compiler design, team of two).
- Performance Analysis and comparison of ZeroMQ and TCP (COMP 535 Computer networks, team of three).
- A fault-tolerant distributed travel reservation system (COMP 512 Distributed systems, team of two).
- **DotGyan**: A server side browser independent search enhancement tool for web pages with textual content (personal).(url - bit.ly/14FUtBS)