

Sina Sadeghian Sadeghabad

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SUMMARY

- ◇ 7 years of professional software development experience.
- ◇ Expert in Ruby on Rails, Java and C++.
- ◇ Strong background in advanced algorithms and performance optimization with four publications in the top international journals and conferences in the field.
- ◇ Solid experience in databases, web, desktop and network applications architectural design.
- ◇ Experience in team building, recruitment, leadership and Agile development.
- ◇ Experience in cloud infrastructure and deployment, continuous integration, automated testing, automated monitoring and backup, scalability, fault tolerance and reliability.
- ◇ Winner of various awards and medals in international programming competitions including a silver medal in International Olympiad in Informatics.
- ◇ Master of computer science graduate from University of Waterloo.

WORK EXPERIENCE

- ◇ **Co-Founder, Chief Technology Officer and Member of Board of Directors, ApplyBoard (Easy Education Inc)**, Kitchener, Ontario, Canada.

May 2015 - present

- Direct the product development and architectural design.
- Recruitment and leadership of 8 developers.
- Built the dev-opts and cloud infrastructure on AWS using Ruby on Rails/MySQL stack.
- Prototyped, launched and scaled ApplyBoard.com from ground up.
- Utilized Ruby on Rails, MySQL, Javascript, JQuery, CoffeeScript, HTML, CSS, Shell Script, Jenkins, Github, SASS, Ubuntu, Apache Server, Phusion Passenger and AWS EC2/RDS/SES.

- ◇ **Software Developer, IBM Canada Lab**, Markham, ON, Canada.

August 2013 - April 2015

- Took over the COBOL Compiler and Optimus's Performance Measurement and Analysis on zOS and reported to various compiler development teams in North America.
- Carried on the performance analysis of the new IBM z13 mainframe released in 2015.
- Built new infrastructure and analytics tools for compiler performance analysis and fully automated the performance QA.
- Earned **Managers Choice Award** for demonstrating the Practice: Dare to Create Original Ideas.
- Utilized Java, JSP, Ruby on Rails, Postgres, DB2, Redhat, Tomcat, Shell Script, Perl, Javascript, Dojo, HTML, CSS, zOS, TSO, JCL, zLinux and IBM Rational Team Concert/Jazz.

- ◇ **Software Developer, SurfEasy Inc.** , Toronto, ON, Canada.
 - May 2013 - July 2013
 - Desktop C++/QT and Android application development for SurfEasy’s VPN network client software.
 - Utilized C++, QT, STL, Visual C++, Java, Android SDK, OpenSSL, Ant, MacOSX, QTest, Github, Jenkins and Shell Script.
- ◇ **Software Engineer, Pars NTRIP Caster Project,**
 - September 2011 - April 2012
 - Planned the project time-line and budget.
 - Lead the architectural design and implementation of a distributed highly-scalable highly-reliable Data Broadcasting Server for real-time DGPS/RTK correction data broadcasting using C++.
 - Carried on implementation of various low level TCP/UDP protocols and designed and implemented a SOAP API.
 - Wrote 50k+ lines of code in C++.
 - Extensively documented the project using UML, ERD and Doxygen.
 - Utilized C++, QT, Boost, Boost.Asio, Postgres, GSoap, QTest, SVN, Shell Script, GMake, QMake and Redhat.
- ▷ **Contract Software Developer, Encyclopedia of Iranian Architectural History,**
 - January 2010 - September 2010
 - Implemented Persian Language support for Apache Lucene in Java,
 - Implemented the front-end search portal in PHP.
 - Integrated existing and new PHP applications with DSpace, Wikimedia and Lucene.
 - Utilized Java, PHP, Postgres, HTML, CSS, Shell Script, Ant, Maven, Ubuntu and Redhat.
- ▷ **Member of Executive Committee of Iranian National Olympiad in Informatics, Young Scholars Club, Iran.**
 - 2007 - 2011
 - Taught Advanced C++, Algorithms and Graph Theory courses.
 - Designed advanced algorithmic problems and graded exams in national IOI preparation camps.

OTHER
PROFESSIONAL
ACTIVITIES

- ▷ **Teaching Assistant, Sharif University of Technology,**
 - Design and analysis of algorithms,* Spring 2010
 - Modern Information Retrieval,* Spring 2011
- ▷ **Teaching Assistant, University of Waterloo,**
 - Linear Algebra 2 for Honours Mathematics,* Spring 2012
 - Linear Algebra for Engineering,* Fall 2012
 - Linear Algebra 1 for Honours Mathematics,* Winter 2013

EDUCATION

Master of Mathematics in Combinatorics and Optimization, University of Waterloo, Waterloo, ON, Canada. May 2012 - May 2013

Thesis: Node-Weighted Prize Collecting Steiner Tree and Applications

Bachelor of Science in Software Engineering Sharif University of Technology, Tehran, Iran, September 2007 - June 2011.

Thesis: A Survey on Spread of Influence through Social Networks

HONORS AND AWARDS

- ◇ **Silver Medal** in International Olympiad in Informatics (IOI), Zagreb, Croatia, 2007
- ◇ **Gold Medal** in National Olympiad in Informatics, Tehran, Iran, 2006
- ◇ **Silver Medal** in National Olympiad in Informatics, Tehran, Iran, 2004
- ◇ **5th Team** in ACM-ICPC East Central North America Regional Programming Contest, Windsor Site, Windsor, ON, Canada, Nov 2012
- ◇ **3rd, 3rd and 5th Team** in ACM-ICPC West Asia Regional Programming Contest, Tehran Site, Tehran, Iran, Dec 2010, Nov 2009 and Dec 2008.
- ◇ **Ranked 28th** in *HackerRank 24 hrs. CodeSprint 4* among more than 700 participants worldwide. Feb 2013
- ◇ Awarded as **Outstanding Student** by university president, 2007
- ◇ Recipient of the **Grant for Undergraduate Studies** from the Iranian National Foundation of Elites, Fall 2007 - Summer 2011

TECHNICAL SKILLS

- ◇ **Theoretical Computer Science:** Proficient in algorithms, data structures, optimization and algorithmic problem solving and fast implementation of bug-free code.
- ◇ **Programming:** Proficient in Ruby, C++ and Java with previous experience with C# and PHP.
- ◇ **Web Development:** Expert in web development with Ruby on Rails, JavaScript, HTML5, CSS3, SASS, JQuery and RESTful APIs, Apache Server and Phusion Passenger. Also familiar with PHP, ASP.NET, JSP and GWT.
- ◇ **Databases:** Advanced knowledge of SQL, relational database design, replication, master-slave setup, MySQL, Postgres, SQLServer and DB2.
- ◇ **Mobile Development:** Experienced in Android SDK.
- ◇ **Development Tools and libraries:** Experienced in Ruby Gems, Rake, STL, Boost, Git, SVN, Ant, Make, GMake, QMake, Jenkins, Windows API, Linux shell, Perl, OpenGL, Visual Studio and Eclipse.
- ◇ **Software Engineering and dev-opts:** Hands-on experience in OOD, software design patterns, UML, ERD, code documenting standards (Doxygen, Javadoc), Automated Testing, Continuous Integration, Multi-Threaded and Distributed system design and network programming.
- ◇ **Management and Team-work:** Experienced in Agile team management, challenge lover, self-motivated, hard working and dedicated to high quality.

PUBLICATIONS

- ◇ **An LMP $O(\log n)$ -Approximation Algorithm for Node-Weighted Prize Collecting Steiner Tree,**
Joint work with J. Könenmann and L. Sanitá. *FOCS'13, 54th Annual IEEE Symposium on Foundations of Computer Science.*

- ◇ **Better Approximation Algorithms for Technology Diffusion Problem,**
Joint work with J. Könenmann and L. Sanitá. *ESA '13, 21st European Symposium on Algorithms.*
- ◇ **On a Bounded Budget Network Creation Game**
Joint work with M. Safari, S. Ehsani, M. Fazli, A. Mehrabian, M. Saghafian and S. ShokatFadaee *SPAA '11, Proceedings of the 23rd ACM symposium on Parallelism in algorithms and architectures .*
- ◇ **On Non-Progressive Spread of Influence through Social Networks,**
Joint work with M.A. Fazli, M. Ghodsi, J. Habibi, P. Jalaly Khalilabadi and Vahhab S. Mirrokni. *LATIN 2012, Latin American Symposium on Theoretical Informatic.*
Also subject of my BS Thesis.