

## Technical C.V.

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### SUMMARY

A software/hardware engineer with experience on software development management, software/hardware analysis and design, programming, network management, and cluster computing. A Googler!

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### RELATED EDUCATION

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| <b>Sharif University of Technology</b>        | 2004 – 2009 Sep. |
| • Ph.D., Networks, Avg 19.62 / 20             |                  |
| <b>Sharif University of Technology</b>        | 1998-2001        |
| • M.Sc., Software Engineering, Avg 17.53 / 20 |                  |
| <b>University of Tehran</b>                   | 1994-1998        |
| • B.Sc., Hardware Engineering, Avg 17.2 / 20  |                  |

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### WORK EXPERIENCE

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| • Software Engineer at Google, Mountain View, California  | 2011-now  |
| • Manager of HPC center of IPM with 17 members and 7 active academic projects                                 | 2010-2011 |
| • Initiating and managing the project of ERP system development for RIPI (SYP) and leading the 12 people team | 2004-2011 |
| • Initiating and managing Parallel Computing Section at RIPI  | 2009-now  |
| • Optimization of business processes of computer department of RIPI according to ITIL guidelines              | 2010      |
| • Secretary of RIPI Software Council, consultant for software projects in oil industry defined at RIPI        | 2009-2010 |
| • Initiating the RIPI Engineering Software Development Team   | 2009      |
| • Internship at LMTS laboratory of EPFL University, Switzerland (2 months)                                    | 2008      |
| • Research visit at KTH University (6 months)   | 2008      |
| • Development of a comprehensive network simulator (Xmulator)   | 2004-now  |
| • Development of a commercial chat software (Glassroom)   | 2000-2004 |
| • Initiating the "New Technologies in Education and Research" office of IAUQ                                  | 2003      |
| • Renovating the website of Research Institute of Petroleum Industry (RIPI)                                   | 2004      |
| • Coach of the first ACM programming contest team of Islamic Azad Uni. Of Qazvin                              | 2002-2003 |
| • Webmaster of Islamic Azad Uni. Of Qazvin. Starting the first website of the univ.                           | 2000-2003 |
| • Manager of technical committee of the first Iranian Mechatronics Conference                                 | 2003      |
| • Development of an ECG software for Davinsa company (Tapesh Negar)   | 1995-2000 |

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## TRAINING COURSES

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- Software Development Using the RUP Methodology 2004
- ASP.Net programming 2004
- Information Technology Infrastructure Library (ITIL) Foundation V3 2010  
| (A combination of international good practices to provide IT services)
- Process Management 2010  
(How to migrate your functional organization to a process-based organization)
- Microsoft® Active Directory 2010 Nov.

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## INTERESTS AND EXPERIENCES

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- Software design
- Internet and web programming
- Java programming
- Software architecture
- RUP software development process / UML
- System analysis and design / Performance evaluation
- System simulation
- Enterprise applications
- O/R Mapping
- Network systems
- Web design
- Digital signal processing
- Voice and sound processing
- Programming to control hardware
- Hibernate, NHibernate, Log4j, Log4net
- Developing multilayer distributed enterprise applications in C#.NET environment

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## SOFTWARE DEVELOPMENT ENVIRONMENTS

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- Java® (more than 40,000 lines of code)
- C# (more than 80,000 lines of code )
- C and C++ (more than 20,000 lines of code)
- Visual C++ (more than 30,000 lines of code)
- ASP.NET
- PHP
- JSP
- HTML, and Javascript, Ajax
- ASP
- Linux shell scripting
- J2EE®
- X86 and 68K assembly language
- Rational Rose
- VHDL

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- Microsoft® SharePoint®
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## PROJECTS

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<b>High Performance Computing Projects</b> As the manager of High Performance Computing Laboratory at Institute for Research in Fundamental Science (IPM), Iran, I participated several projects in the areas of parallel computing, GPU programming, CELL programming, and NoC simulation.	2010-2011
<b>XMulator*</b> It is a general object-oriented event-based simulation software, which is mainly developed to simulate Interconnection Networks and Wireless Networks. The package is used and extended by more than 20 students for their own research projects. The software is developed on a multi-layer architecture in C# language.	2004-now
<b>SYP ERP</b> It is an ERP system for RIPI. The software is developed based on the VONAS framework with a team of 12 members, which led by me for 5 years. This ERP has a distributed, service oriented, multilayered, and O/R mapped system. I was the sole architect of this software. The software is currently serves more than 1000 employees for their office work.	2004-2011
<b>SENSA (Sensor Networks for Space Applications)</b> It is a project defined at LMTS lab. of EPFL University, Switzerland as a part of European project E-Cube. In this project, a network of few wireless nodes is established and data from sensors are gathered and reported through a web interface.	2008
<b>A small Windows-based cluster for CFD simulation*</b> It is a project to make an 8-node cluster. The nodes are HP D360 servers each with 8 processing cores. The cluster is separated from company LAN by a gateway supporting VPN access to the cluster nodes. The cluster is controlled by a Domain Controller and jobs are spawned by Microsoft HPC package.	2009
<b>VONAS framework*</b> It is a comprehensive framework for an Enterprise Resource Management (ERP) solution developed at RIPI. The framework contains different modules such as authentication, single sign on, navigation, data access, ...	2004-2005
<b>E-Voting software*</b> It is a web-based e-voting software developed for a local election at RIPI.	2004
<b>InterAcc*</b> A Windows based RADIUS server (accomplished to module design state).	2003
<b>Textile puncher project</b> It is a software project to control mechanical puncher used in textile companies. I contributed in the project as a software consultant.	2003
<b>GlassRoom chat software*</b> It is a comprehensive voice/text chat and conference software. The software is developed based on Java® Applet, Java® Servlet, and ActiveX® technologies. The package works on both Windows® and Linux operating systems.	2000-2004
<b>Seda-Negar*</b>	2000-2001

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\* I conducted these projects entirely.

It is a tool to generate dynamic and static spectrogram from a given sound record. This software is developed in VC++.

**Bi-lingual conferencing and chat software\*** 2000

It is a web-based text chat application.

**Farsi-English dictionary\*** 1998

It was also a dictionary for Amiga® Operating System.

**Operator Channel Monitoring System** 1997-1998

It is a project to design and implement a 30 channels audio board to record 30 voice channels concurrently. The board is plugged at the ISA slot and captures the samples using Direct Memory Access.

**Amiga Negar\*** 1997-1998

It was a commercial package to add Persian language support to Amiga® Operating System.

**Tapesh Negar\*** 1995-2000

This project started at 1995 in Davinsa medical equipment company. The goal of the project was to control treadmill and executing stress test. The final software is used at more than 70 hospitals and medical centers.

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#### RELATED TAUGHT COURSES

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Below, is the list of technical courses I taught at different universities.

- Internet engineering
- Web-based programming
- Introduction to internet
- Design of algorithms
- System analysis and design
- Computer science basics
- Software engineering
- Advanced programming
- Programming in C
- Advanced topics : Java language
- Advanced topics : Web design
- Documentation of information systems