

Sharif Computing Center  
Sharif University of Technology,  
Tehran, Iran

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## Objective:

To obtain a fulltime PhD position

## Research Interests:

- Desktop Virtual Reality Systems (VRML and X3D)
- Computer Graphics and Scientific Visualization
- Human Computer Interaction (HCI) and Computer Supported Cooperative Work (CSCW)



## Research Theme:

“Visualization of natural phenomena in a distributed virtual environment”; this work focuses on distributed visualization of 3D natural phenomena such as trees, mountains, clouds, across many physical servers. Current contributions include management policies, enhanced rendering and making fault tolerant multi-user environment.

The research prototype, called FractVRML, provides an X3D profile suitable for visualization of this natural content. FractVRML separates into two categories of nodes: data structure nodes and fractal nodes which support main natural objects of every virtual environment.

## Education:

- **M.Sc.**, Computer Engineering Department, Iran University of Science and Technology, Dissertation title: “The study and application of fractal geometry capabilities in new standard of Web3D (X3D)”, Sept 2000 – Feb 2003, Overall GPA:16.23 (over 20)
- **B.Sc.**, Computer Engineering Department, Ferdowsi University of Mashhad, Sept 1996 – Sept 2000, Overall GPA: 17.19 (over 20)

## Publications:

### Journal Articles

- Javad Sadeghi, Mahdi Faizy, “Using Quaternions for Implementation of FractVRML Nodes”, To be submitted to: Special Issue of the Elsevier Journal ‘Computers & Graphics’ on Natural Phenomena Simulation, 2006
- Javad Sadeghi and Mohsen Sharifi, “FractVRML: A New Proposition to Extend X3D with Fractal Geometry”, Selected paper of Journal of Computer Society of Iran, 2004

### Conference Papers

- Javad Sadeghi, Amir Aavani, Mohsen Sharifi, “CyberVoice: A Fractal Based Architecture for Audio Compression in CyberSession”, To be submitted to: The Sixth IASTED International Conference on WEB-BASED EDUCATION (WBE 2007)
- Javad Sadeghi, Amir Aavani, Mohsen Sharifi, “CyberSession: A New Proposition for E-Learning in Collaborative Virtual Environments”, In Proceedings of WSCG 2005 Conference, ISBN 80-903100-8-7, WSCG’2005, Plzen, Czech Republic, Copyright UNION Agency – Science Press, January 31-February 4, 2005
- Mohsen Sharifi, Javad Sadeghi, Reza Mostafaei, “A New Architecture for 3D Web-Based Virtual Shopping Malls”, First conference of E-Business in Iran, Tehran, Iran, October 2004, (Farsi)
- Mohsen Sharifi, Fatemeh Hashemi Golpaygani, Mehdi Esmaeli, Javad Sadeghi, “A New Fractal-Based Approach for 3D Visualization of Mountains in VRML Standard”, Proceedings of the 2nd international conference on Computer graphics and interactive techniques in Australasia and South East Asia (GRAPHITE’2004), Singapore, June 2004
- Fatemeh Hashemi Golpaygani, Mohsen Sharifi, Mehdi Esmaeli, Javad Sadeghi, “A New Approach for Visualization of 3D Mountains in FractVRML”, Proceedings of the 9th Annual

Int. Computer Conference of the Computer Society of Iran (CSICC'2004), Sharif University of Technology, Tehran, Iran, February 2004 (Farsi)

- Javad Sadeghi and Mohsen Sharifi, "FractVRML: A New Proposition to Extend X3D with Fractal Geometry", Proceedings of the 9th Annual Int. Computer Conference of the Computer Society of Iran (CSICC'2004), Sharif University of Technology, Tehran, Iran, February 2004

#### **Technical Reports**

- "Encryption Decryption Library", AS2805 (Australian Standard), Technical Report, CDT Co., Sep 2000

#### **Book Translations**

- "Software Engineering: Principles and Practice" by Hans Van Vliet, To be published in 2006

#### **Software Releases:**

**Angelica:** A tool for herbal medicine using humor diagnosis and diet therapy.

**FractVRML Profile:** Combinations of source codes required for FractVRML X3D profile.

**CyberSession:** A tool for e-learning in collaborative virtual environments.

#### **Honors & Grants:**

**Grant to participate in 13<sup>th</sup> International Conference in Central Europe on Computer Graphics, Visualization and Computer Vision (WSCG'2005)**, Plzen, Czech Republic, January 31-February 4, 2005

Defense from M.Sc. thesis with A (19.5/20) grade, Iran University of Science and Technology, Computer Engineering Department, Tehran, Iran, 2003

**Grant to participate in ACM International Collegiate Programming Contest World Finals**, One of 195 students chosen from about 1000 universities of 70 countries for 2001 World Finals in Canada - Vancouver (We ranked first in university and second in Western Asia, so advanced to World Finals, but because of flight problems arrived to Vancouver late and listed in Honorable Mention list), 2001

82nd place in Iran Graduate Universities Entrance Examination (Each year about 6000 students participate in Iran Graduate National Universities Entrance Examination in Computer Engineering), 2000

Second best GPA among computer students who entered Ferdowsi University of Mashhad, 2000

Best selected article in Geometry among Mashhad high school students, 1996

Chosen for second level of Mathematical Olympiad, 1996

Chosen for second level of Mathematical Olympiad, 1995

#### **Courses Taught:**

Shahid Beheshti University, Computer Science Dept., **Software Engineering II**, spring 2005

Azahra University, Computer Engineering Dept., **Software Engineering II**, spring 2005

AICTC (Advanced Information and Communication Technology Center / Sharif University of Technology), **UML language and RUP methodology training course**, summer 2004

Zanjan Institute for Advanced Studies in Basic Sciences, IT Department, **Data Structures and Algorithms**, spring 2004

APTECH certified computer professional program, Sharif University of technology, **HTML, Dynamic HTML and JavaScript**, spring 2004

Iran University of Science and Technology, Computer Engineering Dept., **Software Engineering II**, fall 2003, spring 2004

Khajeh Nasir Toosi University, Mathematical Science Department, **Data Structures and Algorithms**, fall 2003, spring 2004

Tehran Azad University, North Branch., Computer Engineering Dept., **Software Engineering I**, spring 2003

Tehran Azad University, North Branch, Chemical Engineering Dept., **Computer Essentials and Pascal Programming Language**, spring 2003

## **Working Experience:**

### **CyberMehr High-Tech (Sep 2005 – Now)**

Project manager of Angelica CD

**Description:** This project is for development and marketing of a multimedia CD for herbal medicine that contains a rich database of traditional pharmacology.

### **Armitis Software Co. Ltd, Tehran (Sep 2003 – Sep 2005)**

Managing Director

**Sep 2003 – Jan 2004** as project manager of Agahdad Project (<http://www.agahdad.com>)

**Description:** The Agahdad project is an e-commerce site for e-business in Tehran that is developed for Agahdad Company with .NET framework and MS SQL Server DBMS.

**Jan 2004 – Sep 2004** as consultant of Locopoc Project (<http://www.locopoc.com>)

**Description:** The Locopoc project is the first online auction system in Tehran that is developed with .NET framework and MS SQL Server DBMS.

### **TREC (Tehran Regional Electric Company), R&D team in Informatics Section, Tehran (Sep 2002 – Jan 2003)**

Co-operation on applicable studies in Object Oriented Methodologies

Co-operation on Research and Development on Methodologies of Software Development for Projects

Co-operation on performing management of Object Oriented projects

### **AICTC (Advanced Information and Communication Technology Center / Sharif University of Technology), Tehran (Jan 2002 – Jan 2003)**

Consultant of Object Oriented Analysis and Design

**Jan 2002 - Sept 2002** as analyst and designer of NYO project (<http://www.javanan.ir>)

**Description:** The NYO project is a country-wide network developed for National Youth Organization with J2EE Framework and Oracle 9i DBMS.

### **Katkan Drilling Services Co. South Asaluyeh (P.J.S.), Tehran (Sep 2001 – Jan 2002)**

IT Manager

### **NetAva, Internet Service Provider, Tehran (Sep 2000 – Sep 2001)**

Webmaster and developer

### **Creative Digital Technology Co., Mashhad (Jan 2000 – Sep 2000)**

Developer

### **Khorasan Health care Center, Mashhad (Sep 1999 – Jan 2000)**

Developer of the search system of the first conference on “Health System Research in Primary Health Care” in Iran

## **Service:**

Program committee member and session chair, 4<sup>th</sup> IUST computer conference, Nov 2003

ACM programming contest coach, Iran University of Science and Technology, Oct 2003

Teaching Assistant, Ferdowsi University of Mashhad, Computer Engineering Department undergraduate discrete mathematics (fall 1997, spring 1998)

Editorial Board, “0&1 Magazine” (Magazine of Ferdowsi University Computer Students), 1997-2000

Member of scientific committee of first high school students’ programming contest in Mashhad city, 2000

Advisory Board, National Organization for Development of Exceptional Talents (NODET)

Electrical and Computer Association (Named: “Pooyandegan”), 1999-2000

Founders Board, NODET Electrical and Computer Association, 1999

Member of scientific committee of first Computer Conference in Mashhad, (tribute of Prof. Hesabi), 1999  
Senior member of “Computer Students Association of Science and Research”, 1998-99  
High School Teacher, NODET - Mashhad branch, Computer Principals and Pascal Programming Language, fall 1996

### **Familiarity with Computer Environments:**

<b>Development Platforms:</b>	Microsoft .NET, Java Enterprise Edition 2.0
<b>Operating Systems:</b>	Windows, Linux
<b>Programming languages:</b>	C, C++, Pascal, Java, PC assembly
<b>Scripting Languages:</b>	HTML, DHTML, VRML, X3D, JavaScript, ASP.NET
<b>Development Environments:</b>	Visual Studio .NET, Borland Delphi, Borland JBuilder
<b>Technologies and Standards:</b>	XML, ODBC, Applets, Servlets, J2EE, Java3D, Cryptography
<b>Web Servers:</b>	IIS, Tomcat
<b>Databases:</b>	Microsoft SQL Server, Oracle
<b>Methodologies:</b>	SSADM, RUP, XP
<b>Network Modules:</b>	One year of experience in installation and maintenance of an ISP and its monitoring tools
<b>Development Tools:</b>	Rational Suite 2002, SilverRun, Together Control Center, IntelliJ IDEA
<b>Applications (Technical):</b>	MS Project, Adobe Photoshop, Adobe Golive, Macromedia Dream weaver, VizX3D, MATLAB, J2EE tools
<b>Applications (General):</b>	Msoffice, LaTeX, etc.
<b>Application Experiences:</b>	5 years of proficiency in development, analysis and management of software projects and implementation of web-based applications with .NET and J2EE frameworks

### **Athletic Activities:**

Member and coach of basketball team of computer engineering department, Iran University of Science and Technology (2000-Now)  
Member of Basketball team of computer engineering department, Ferdowsi University of Mashhad (1996-2000)  
Bronze Medal, Region 3 of Mashhad city Basketball championship (fall 1995)

### **Languages:**

**Persian:** Fluent, Native  
**English:** Fluent (TOEFL score: 570 out of 677, IELTS score 6 out of 9)  
**French:** Familiar