

## CURRICULUM VITA FOR MOHSEN JAVADIAN

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Houston, Texas 77059  
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**Educational Qualification:** Doctoral program in IT  
Completed all required courses (20 courses) toward Doctoral degree in Instructional Technology at the University of Houston. (1995-1999)  
Leadership Courses, related to the Doctoral program, completed at the University of Cambridge (Cambridge, UK, Summer 1996)  
M.S. in Computer Science  
University of Houston-Clear Lake (Houston, Texas)  
1987  
B.S. in Computer System Design  
University of Houston-Clear Lake (Houston, Texas)  
1984  
B.S. in Electromechanical Engineering Technology  
Texas Southern University (Houston, Texas)  
1981  
Associate Degree in Science  
Bee County College (Beeville, Texas)  
1979

### Current Activities:

- Academic Year 2013:**
1. Presented LAP proposal to Provost Ohio and all Deans
  2. Submitted LAP proposal to Provost for approval
  3. Member and CO-PI of future Center for Cyber Security Team for Air Force
  4. Member of Search committee to hire Chair for Computer Science

Department

5. Member of College Grievance Committee

**Academic Year**

1. Member of Search Committee to hire Chair for CS Department

**2011 and 2012**

2. Chair of Search Committee to hire an Assistant Professor for CS

Department

3. Served two years in the Senate as a Senator representing College of

Science and Technology

**Teaching**

**Experiences:**

Texas Southern University (TSU) in Houston, Texas

Associate Professor, 1988 to present

Senator of College of Science and Technology at TSU.

University of Houston-Clear Lake (Houston, Texas)

Adjunct Instructor, 1988-1992

Teaching Assistant, 1986-1987 (Graduate Student)

**Teaching Accomplishments:** Texas Southern University

Responsible for teaching Programming in C, C++ , and JAVA. Also responsible for Software Engineering, HTML, Computer Organization, Data and File Structure, Fundamental of Machine Computation, and Operating Systems courses

Responsible for teaching Advanced Programming in C at University of Houston-Clear Lake Campus between 1988 and 1992.

Assisted in the complete design of the computer science curriculum for graduate at Texas Southern University. Prepared the initial programming standards document in use by computer science majors at Texas Southern University.

**Operating Systems:**

Knowledge of the following operating systems: HP, VAX/VMS, UNIX, LINUX, Solaris, Windows, and DECALPHA.

**Programming Languages:**

Proficient in the use of the following programming languages: FORTRAN, PASCAL, C, C++, Visual C++, Visual Basic, ADA, and JAVA.

**Database Packages:**

Have had experience in working with the following database packages: Dbase IV, Ingres, INFORMIX, and ORACLE.

**Research and Development Experiences (R&D Experiences):**

#### **A. R&D Experiences as a Visiting Professor during Summer**

1. Hamilton Sundstrand, United Technologies Corporation, (Windsor Locks, Connecticut), 2006
2. United Space Alliance (Houston, Texas), 1997-2005
3. AT&T Bell Laboratories (Denver, CO), 1993-1995
4. AT&T Bell Laboratories (Middletown, NJ), 1991
5. AT&T Bell Laboratories (Denver, CO), 1989-1990

#### **B. R&D Experiences as a graduate student**

1. University of Houston-Clear Lake (Houston, Texas) 1986-1987

#### **Research Grants Received**

- During Spring 2006, money to support feasibility study. The support came from the Hamilton Sundstrand in the amount indicated below:
  - 1) Spring 2006, \$5900.00
- Between 1997 and 1999, money to support software development with the amount of **\$67,908.00** came from the United Space Alliance (NASA contractor) in the amount indicated below:
  - 2) Fall 1997, \$11,161.00
  - 3) Fall 1998, \$21,554.00
- Students participating in these projects have been hired directly at graduation by USA as Software Engineers, thus, creating a unique opportunity for career experience, resume enhancement, and swift placement in the workforce at the time of graduation in a professional environment with which they were familiar.

## **Research Accomplishment:**

During April and May 2006, my students and I did feasibility study for Hamilton Sundstrand. The Hamilton Sundstrand One EVA Program Office was in the process of piloting and deploying a Management Information System (MIS) to facilitate the electronic dissemination of information as well as automate processes managed by Hamilton Sundstrand across the Program Community that includes multiple partner aerospace companies and the National Aeronautic Space Administration (NASA) customer.

Summer of 1997, I, along with twelve different students, have been involved during both Summers and regular school terms at the **United Space Alliance** (NASA contractor) in Houston (TX) with several major NASA software projects: opportunities for the public to sight the Space Shuttle and Astronaut training. As a group, my students and I converted existing software (originally written in FORTRAN) to JAVA that allows the public to gain information regarding the position of the Shuttle for sighting at any time and any place in the world. This program is currently running on the Internet; and during 1999, **Popular Science Magazine** rated this software as one of the top ten scientific software packages on the WEB. We also designed WEB-based training software for the U.S. astronauts at the Johnson Space Center. Three pieces of these software are: The Book Creator (**TBC**), The HotSpots (**THS**), and The Virtual Book (**TVB**). We designed the Attitude Directional Indicator (**ADI**) trainer. It is a tool designed to manipulate the Space Shuttle RHC and is being written in C++.

PUMA, PPROD\_GEN, SKY WATCH, and FDOWeb are other projects developed at the USA and explained as follow:

**FDOWeb** pronounced “FidoWeb” is an application written using Java. It is not an applet but a stand-alone application that runs on any PC with the Windows operating system. FDOWeb is an application that quickly and efficiently creates pre-flight trajectory data web sites per the requirements provided to DM32 (Flight Dynamics; an area of Technical Responsibility) by various customer throughout MOD (Missing Operations Directorate). FDOWeb will accept inputs through a single user interface, reformat the data (if required), and publish the final products to the location of the user’s choice. The resultant

web site(s) will be standardized **so that all flights and cycles will have a common look and feel.**

**SkyWatch** is an Internet web-based Java application (“*applet*”) that predicts tracking data for Earth orbiting satellites. It uses trajectory information direct from Mission Control in Houston. SkyWatch determines if any of the passes of a satellite will be visible to a ground observer. It also provides both digital and textual presentations of results. These include a graphical SkyTrack map of the night sky to help users make sightings. Also, it includes a re-entry sighting predictions which is something no other current sighting program can do.

**PSA PRODUCT GENERATOR (PPROD\_GEN)** is a new CI required for the automated formatting/output of the prop charts and formal products. This new tool is to be based on the requirements of the product formatting within the current PUMA Code.

Propellant Usage and Mass Analysis (**PUMA**) software is used to perform detailed propulsion systems analysis for OMS/RCS propellant budgeting and orbiter vehicle mass properties determination based on the timeline inputs and user’s/supplier’s specifications. The Task was to port the PUMA and TLGEN applications to PC. To do so, the interfaces written in X-Windows had to be rewritten in wxWindows. wxWindows is a set of libraries that allows C++ applications to compile and run on several different types of computer, with minimal source code changes.

During the summer of 1995 at the AT&T Bell Laboratories in Denver (CO), assigned to test a new commercial software product called LoadRunner. This testing was necessary to determine whether or not LoadRunner could be used in conjunction with other work in progress at that time. Based upon results I obtained, a recommendation was made for the purchase of the LoadRunner. Subsequent to purchase, it was integrated into overall project (referred to as MMCS) at AT&T in Denver, which has now become Lucent Technologies.

During the summer of 1994 at the AT&T Bell Laboratories in Denver (CO), did feasibility study to determine whether or not an automated software testing product, WinRunner developed by Mercury Corp. could be used to test a Microsoft Windows based software program (Generic 3 Management Application R1V4.0) designed by the AT&T Bell Laboratories. My work produced definitive result that proved WinRunner can be used to test the Generic 3 software effectively and a listing of advantages and disadvantages of the WinRunner software.

During the summer of 1993 at the AT&T Bell Laboratories in Denver (CO), worked on Traffic and Regression Test System (**TARTS**) script development using C++ in a Sun Workstation environment. It is a tip ring simulator used for testing both PBX and CO telephone switches. Wrote the following TART scripts in C++. AudioScript, AudioLeaveWordCalling, AudivCoverage, PDM, AutoAttendant, and AutoListen.

During the summer of 1991 at the AT&T Bell Laboratories in Middletown (NJ), designed software for an exclusive telephone set utilizing a Microsoft Software Development Kit and a C compiler. This software allows the user to select any number by passing the left button of the mouse so that the program reads the coordinates of the mouse and displays the selected number on the screen as it displays a bit-mapped image of a telephone set.

During the summer 1990 at the AT&T Bell Laboratories in Denver (CO), evaluated the existing R1V4 software for the Audio Information Exchange (**AUDIX**). My evaluation concentrated on determining whether or not there is a correlation between a high complexity of software and error. The **McCabe's** matrix concept was utilized in the evaluation process.

During the May of 1990, received training in the use of the **CimStation Robotic Graphic Software** produced by **SILMA** Corp (Cupertino, CA) on-site as part of my participation in the **Lockheed** software testing contract issued to the Department of Computer Science and Physics at Texas Southern University. The CimStation software is mounted on a **SUN SPARC Station1** platform and is used for designing Robots Graphically. Since that time, participated in the Robotic Graphics Group in the Department, comprised of both faculty members and students, that is devoted to the design of Robots using the CimStation software.

During the summer 1989 at the **AT&T Bell Laboratories** in Denver (CO), completed a software engineering project related to the Integrated Services Digital Network (**ISDN**). The programming required as part of the project required my becoming proficient in the use of the C++ programming language, the concept of Object Oriented design and the use of X-Windows (designed at M.I.T.).

Between 1986 and 1987 as part NASA/Johnson Space Center project at the University of Houston-Clear Lake Campus, designed database management system for the Mission Planning and Analysis Division (**DBMS/MPAD**). The design involved the use C language to interface with ORACLE.



**Award and Recognition:**

1. Received award in recognition of outstanding contribution during the recovery and investigation of the STS-107 Space Shuttle Columbia accident. 2005
2. ER III Software Re-Host award 2007
3. Received Rapid Depressurization Team Performance award from United Space Alliance. 2008
4. Mission Control Center Re-Host Team Award 2008

**Leadership courses completed:**

- A. have completed the following leadership courses within United Space Alliance:
  1. The leader in each one of us
  2. Influencing for win/win outcome
  3. Giving and receiving constructive feedback
  4. Giving recognition
  5. Personal strategies for navigating change
  6. Bringing out the best in others
  7. Expressing yourself
  8. Proactive Listening
  9. Correcting performance problems
  10. Moving from conflict to collaboration.
  11. Handling emotions under stress
  12. managing your priority
  
- B. Also completed two leadership courses at the University of Cambridge (Cambridge, UK, Summer 1996)

**Training with certificates:**

1. Completed the following training at the United Space Alliance:
  - a. Discrimination
  - b. Harassment
  - c. Ethics training
  - d. Organizational conflict of interest
  - e. Hazard training
  - f. Requirement Analysis
  - g. Testing Process
  - h. Construction Process
  - i. Integration Process

- j. Project Planning
- k. Project Management
- l. Organizational Training Process
- m. Project Estimation
- n. Business Ethics- What Employees need to know

**2. Other certificates:**

n. C++ at the AT&T Bell Lab

O. **CimStation Robotic Graphic Software** produced by **SILMA Corp**  
(Cupertino, CA)

**Academic year 2011-2012 Performance:**

1. Taught four courses in Fall 2011, three courses in Spring 2012, and two courses including two labs during Summer I of 2012.
2. Was assigned to teach programming in C++ and Operating systems.
3. Served in the Computer Science Curriculum Committee
4. Served as a member of Search Committee to hire Assistant Dean
5. Served as a member of Search Committee to hire Associate Dean
6. Served as a member of Search Committee to review Candidates' applications for the position of Chair for the Computer Science Department
7. Chair of Search Committee in the Computer Science Department to hire a new tenure track faculty.
8. Served in the University Senate as a Senator representing College of Science and Technology.
9. Member of University Salary Committee

## **Scholarly and Professional Publications and Software Development**

- [1] Javadian, Mohsen, "C++ Programming: Constructive Learning, 1<sup>st</sup> ed.". ISBN 978-1-62751-762-1. BVT, California.
- [2] Javadian, Mohsen, "C++ Programming: Constructive Learning, 1<sup>st</sup> ed- ebook 6 month access". ISBN 978-1-62751-763-8. BVT, California.
- [3] Javadian, Mohsen, "C++ Programming: Constructive Learning, 1<sup>st</sup> ed- ebook 6 month access". ISBN 978-1-62751-764-5. BVT, California.
- [4] Javadian, Mohsen, "Instructor's Manual for C++ Programming: Constructive Learning, 1<sup>st</sup> ed."
- [5] Javadian, Mohsen; Claude Jenkins; and Elgin Amboree "SkyWatch final version". A Java program that tracks over 300 satellites (including the shuttle, Hubble Space Telescope, and International Space Station) to view in the sky with the naked eye. Proprietary Software constructed for the United Space Alliance (Houston, TX). 2008.
- [6] Javadian, Mohsen, and Dotson, Ulysses "Mission Control Center Re-host" Rehost Space Center's Mission Control computers to new operating system and test all software. (Houston, TX) 2008.
- [7] Javadian, Mohsen; Dotson, Ulysses; and Caro, Samuel "Rapid Depressurization Tool" . C++/Perl/GDK/GTK. Software for International Space Station(ISS) flight control to project capabilities to re-ingress an ISS module in the event that an overboard-atmospheric leak. Proprietary Software constructed for the United Space Alliance (Houston, TX). 2007
- [8] Javadian, Mohsen; Claude Jenkins; and Greg Phillips. "Econsumable". Houston Texas. Proprietary software constructed for the United Space Alliance (NASA contractor), 2007.

- [9] Javadian, Mohsen; Teko Atanga; and Claude Jenkins. “ Advance JAVA Checkout Monitor”. Houston Texas. A Java program that that simulates data or predicts orbits for NASA orbiters using vector readings, azimuth, velocity, Keplerian elements and other orbital flight mechanic data to predict the flight path for the orbiters. .Proprietary software constructed for the United Space Alliance (NASA contractor), 2006.
- [10] Javadian, Mohsen; Claude Jenkins; and Teko Atanga. “ FDO Web Creator”. Houston Texas. Application developed for Flight Dynamic Officers Department to enhance data control. Proprietary software constructed for the United Space Alliance (NASA contractor), 2005.
- [11] Javadian, Mohsen; Dotson, Ulysses; and Phillips, Greg “Propellant Usage and Mass Products Generator” . Houston, Texas: Proprietary Software constructed for the United Space Alliance (Houston, TX). 2004.
- [12] Javadian, Mohsen; Derrick Douglas; and Greg Phillips “Pprod\_Generator”. C/Perl. Software which generates report for flight analysts. Houston Texas. Proprietary software constructed for the United Space Alliance (NASA contractor), 2004.
- [13] Javadian, Mohsen; Derrick Douglas; and Greg Phillips.” Prop\_34 Mass Consolidation Application”. Houston Texas. proprietary software constructed for the United Space Alliance (NASA contractor), 2003.
- [14] Javadian, Mohsen;Dotson, Ulysses; Phillips, Greg. “Propellant Usage and Mass Analysis Tool”. C/WxWindow. Software helps flight design analyst determine propellant usage for the development of shuttle flight plans. Houston Texas: Proprietary Software constructed for the United Space Alliance (Houston, TX). 2003.

- [15] Javadian, Mohsen; Derrick Douglas; Greg Phillips; and Sebastian Lebby. "ADI Ball CBT" . C++/Direct X. Computer Based Training software to help Space Shuttle Astronauts practice flight simulation using a joystick. Houston Texas: Proprietary software constructed for the United Space Alliance (NASA contractor), 2002.
- [16] Javadian, Mohsem; Astronaut Morin, Lee, Dotson, Ulysses; Javadian, Mohsen; "Orbiter Panel CBT" . Visual Basic Computer Based training software to help astronaut learn locations of all all space shuttle display panels. Houston, Texas: Proprietary Software constructed for the NASA (Houston, TX). 2001.
- [17] Javadian, Mohsen; Morin, Lee, Dotson, Ulysses; "CBT for Space Station Russian Instrument Panels" . Visual Basic Computer Based Training to help space shuttle astronauts team the correct translations between the Russian and English displays. Houston, Texas: Proprietary Software constructed for the NASA (Houston, TX). 2001.
- [18] Javadian, Mohsem; Astronaut Morin, Lee, Dotson, Ulysses; Javadian, Mohsen; "CBT for Space Shuttle Instrument Panel" . Visual Basic Computer Based training software to help Shuttle astronaut learn instrument panel command codes. Houston, Texas: Proprietary Software constructed for the NASA (Houston, TX). 2001.
- [19] Javadian, Mohsen; Derrick Douglas; and Sebastian Lebby. "The Book Creator", "The Hot Spot", and "The Virtual Book". Houston, TX: Proprietary software constructed for the United Space Alliance (NASA contractor), 2000.
- [20] Javadian, Mohsen; Shaji Markoes; and Richard Osborne. "SkyWatch version 1" Houston, TX: Proprietary software constructed for the United Space Alliance (NASA contractor), 2000.
- [21] Javadian, Mohsen; Shaji Markoes; and Richard Osborne. "Orbit Monitor" Houston, TX: Three separate pieces of proprietary software constructed for the United Space Alliance (NASA contractor), 1999.

- [22] Javadian, Mohsen; Shaji Markoes; and Richard Osborne. “Real Time Customer Support Page.” Houston, TX: Proprietary software constructed for the United Space Alliance (NASA contractor), 1999.
- [23] Javadian, Mohsen and Richard Osborne. “Shuttle Sighting Opportunities” Houston, TX: Proprietary software constructed for the United Space Alliance (NASA contractor), 1998.
- [24] Willis, Jerry, Ed.; Price D. , Jerry, Ed.; McNeil, Sara, Ed.; Robin, Bernard, ed.; Willis, Dee Ana, Ed.; & Javadian, Mohsen (A. Ed.), “Society for Information Technology and Teacher education.” ISBN 1-880094-25-8. 1997.
- [25] Javadian, Mohsen; Gus Jones; and Dawn Foster. “CheckOut Monitor.” Houston, TX: Proprietary software constructed for the United Space Alliance (NASA contractor), 1997.
- [26] Javadian, Mohsen. “LoadRunner and MultiMedia Call Server (MMCS)”. Denver, CO: AT&T Bell Laboratories Proprietary Software, 1995.
- [27] Javadian, Mohsen. “WinRunner”. It is used to test G3-MA 4.0. Denver, CO: AT&T Bell Laboratories Proprietary Report, 1994.
- [28] Javadian, Mohsen. “Windows Development-Exclusive Telephone Set – Work Project No. 120W80000-E17030.” Middletown, NJ: AT&T Bell Laboratories Proprietary Report, 1991.
- [29] Javadian, Mohsen. “R1V4/R1V5 Software Evaluation.” Denver, CO: AT&T Bell Laboratories Proprietary Report, 1990.
- [30] Javadian, Mohsen. “Alert Monitor.” Denver, CO: AT&T Bell Laboratories Proprietary Report, 1989.