

- Education:**
- The George Washington University** **Washington, DC**
Doctor of Science (D.Sc.) Graduation: 2008
- Major: Computer Science; Area of concentration: Mathematical Information Retrieval, Mathematical Handwriting Recognition
 - Relevant Course work included Information Retrieval, Image Processing, Statistical Learning Systems and Statistical Inferences
 - Received full doctoral scholarship from George Washington University
 - Upsilon Pi Epsilon (UPE) member
- The George Washington University** **Washington, DC**
Master of Science (M.S.) Graduated 2003
- Major: Computer Science; Area of concentration: Human Computer Interaction
 - Relevant Course work included Human Computer Interaction, Computer Graphics, User Interface Design and Evaluation, Multimedia Design and Implementation
 - Received Graduate Tuition Award & Teaching Assistantship
 - Member of the GWU ACM programming contest team
- Iran University of Science and Technology** **Tehran, Iran**
Bachelor of Science (B.S.) Graduated 1999
- Major: Civil Engineering; Area of concentration: Hydraulics
 - Graduated in the upper 5% of the class
- WIPO World Intellectual Property Organization Academy** **Geneva, Switzerland (Distance Learning)**
Certificate
2008
- Introduction to Intellectual Property
Copyright and Related Rights

Experience:

- NIST (National Institute of Standards & Technology) & GWU** **Washington, DC**
Research Assistant January 2006 to Present
- Designed and implemented a *Handwritten-based Query Processing* front-end for the *Digital Library of Mathematical Functions* (DLMF) in NIST.
 - Improved the precision, recall and relevance ranking of Math Search with handwritten fine-grain queries.
- ID Technology, Georgetown University** **Washington DC**
Camp Instructor June - September 2006
- Directed activities of children at Georgetown University summer camp.
 - Demonstrated use of computers in designing computer programs and games, explaining principles and techniques of game design and game programming.
 - Increased campers' knowledge and competence
 - Trained and managed 24 highschool students and helped them to create simple 2D and 3D games.
 - Enforced camp rules and regulations to guide conduct, maintain discipline and safeguard health of campers.
- DTRA (Defense Threat Reduction Agency) & GWU** **Washington DC**
Research Assistant January 2004 to June 2006
- Researched, designed and developed computer software modules in C++ and Objective C to identify the *Objects of Interest* in X-Ray Images
 - Conducted Segmentation and Classification experiments on real X-Ray images from DTRA
 - Structured and maintained a shared online repository of X-Ray images to be used by the members of the development team
 - Improved the User Interface of the classification program by redesigning sections of the GUI

George Washington University*Course Instructor***Washington DC**

September 2001 to Present

Conducted an undergraduate software design course in Java, Prepared and delivered lectures to students, Wrote, designed and produced homework assignments, exams, projects and lab exercises, Structured and maintained a class website on Blackboard, helped students debug code and answered their questions via email and during office hours.

Graduate Teaching Assistant

Executed daily operations of computer science labs, Wrote syllabus for lab activities, assignments and projects, Prepared and gave lab quizzes, Trained undergraduate students from engineering school and achieved significant improvements in their programming and analysis skills, Graded lab assignments, examinations, programming projects and papers, Maintained lab section website, and mailing lists, Helped students debug code and answered their questions via email and during office hours , Courses taught as a GTA includes: C/C++ Programming , Java Programming, Data Structures, Computer Graphics, Introduction to Computer Science

NASA Jet Propulsion Laboratory & GWU*Research Assistant, Software Developer***Washington, DC**

September 2002 to May 2003

- Conducted research on *Eye Tracking* systems, *Reading Disorders* including *Dyslexia*
- Executed daily operations of Visual Tracking Information Laboratory in GWU Physiology Department, Medical Center
- Designed and Implemented an eye tracking reading remediation software in Visual C++ to help people with reading disorders and non-native speakers
- Conducted experiments with a human cohort, including dyslexic and ADHD patients
- Interviewed human subjects to obtain demographic and research specific data before conducting the experiments
- Analyzed verbal, visual and statistical data to prepare reports
- Co-authored the final report on the *Eye Tracking Reading Remediation Project*
- Presented the final report to Computer Science and Physiology faculty as well as project sponsors from NASA JPL

America Online (AOL) & GWU*Senior Multimedia Developer***Ashburn, Virginia**

January to May 2003

- Directed and led the team of design and development for a multimedia demo of "AOL House of the 21st Century"
- Analyzed the requirements and assigned responsibilities to team members
- Implemented Lingo code in Macromedia Director to assemble different sections of the demo
- Compiled the final project to be installed on touch screen kiosks with Macromedia Director

GWU Student Association, ICS & PHC*Webmaster***Washington, DC**

September 2000 to May 2002

- Designed, developed, and delivered two websites for *Iranian Cultural Society* and *Persian Health Circle*; two student organizations at GWU
- Provided follow up services such as publishing new content, site maintenance, information archiving and data migration
- Used HTML, JAVA, JavaScript and Macromedia Flash to implement the website.

Lausanne Co.*Civil Engineer***Ahwaz, Iran**

July 1999 to June 2000

- Worked as a field engineer in the "Farabi Sugarcane Development Center" in south of Iran.
- Executed daily operations of excavation and installation of underground drain pipes, Laying 145 Km of lateral PVC and concrete drain pipes.
- Analyzed reports, maps and drawings, related to soil composition, hydrological characteristics and geologic data in order to plan and start the next installation site.
- Trained and managed two pipeline technicians and achieved significant improvements in their productivity.
- Inspected installation sites to monitor progress and ensure conformance to engineering plans, specifications, construction and safety standards.
- Used computer-assisted engineering and design software and equipment to prepare progress reports.

Iran University of Science & Technology Computer Center*Research Assistant***Tehran, Iran**

September 1998 to June 1999

- Conducted research on Unicode and Persian character set standards.

- Executed daily operations of Civil Engineering Computation lab.
- Wrote and designed a proposal to convert a civil engineering analysis package (STAAD) from English to Persian.
- Supervised four students in the lab and scheduled their work hours.
- Analyzed and evaluated applicability of previously proposed methods in right-to-left languages such as Arabic and Hebrew for this project.

Programming Languages:

JAVA, C, C++, LINGO, Pascal, MATLAB

Platforms: Windows, Mac OS, UNIX, LINUX

Awards: Full Doctoral Scholarship, George Washington University
 Computer Science Summer Research Fellowship (2008), George Washington University
 Graduate tuition award and Teaching Assistantship, George Washington University
 Full Undergraduate Scholarship, Iran University of Science & Technology
 ACM Programming Contest award, Association of Computing Machinery

Conference Papers:

Ahmadi, S.A., Youssef, A.: Lexical Error Compensation in Handwritten-based Mathematical Information Retrieval. Towards Digital Mathematics Library, CICM 2008. University of Birmingham, Birmingham, UK (2008) [To be Appeared]

Presentations:

Ahmadi, S.A., Sionov, D.: An investigation on the effects of noise and time stress on inspectors' ability to recognize objects of interest in cluttered X-Ray images. George Washington University, Washington DC (2005)

Ahmadi, S.A.: Dynamic Compensation and Update Policy in Collective Learning Systems. George Washington University, Washington DC (2004)

Ahmadi, S.A.: Eye-Gazed Reading Remediation System. George Washington University Medical Center & Computer Science Department, Washington DC (2003)

Technical Reports:

Lavine, R., Sibert, J., Ahmadi, S.A.: Visual Reading Assistant, Eye-gaze System Application for Reading Remediation. Technical Report. George Washington University Medical Center & Computer Science Department, Washington DC (2003)

Affiliation:

Upsilon Pi Epsilon
 ACM Professional member
 IEEE Professional member
 GWU Alumni Association
 IUST Alumni Association
 Iranian Civil Engineering Association

Languages:

Fluent in English, native in Farsi and basic knowledge in Arabic.

Volunteer and Personal:

Sports Avid Squash Player (Member of the Iranian National Squash Team 1998-99), biking and swimming

Volunteer Worked as a volunteer at the IT department of the *American Red Cross* Headquarters in Washington DC.
 Formed a biking team and raised money for the *American Diabetes Association*