

# Curriculum Vitae

## Soheyla Amirian, Ph.D.

Director, [AMIIE Laboratory](#)  
Assistant Professor  
Seidenberg School of Computer Science and Information Systems  
Pace University

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### RESEARCH INTERESTS

**Technical** Explainable, Interpretable, and Accountable AI and Machine Learning  
**Application** Health Informatics

### PROFESSIONAL SUMMARY

**Applied AI and ML Research (7+ Years):** Demonstrated proficiency in designing, implementing, and leading research studies in applied Artificial Intelligence (AI) and Machine Learning (ML).

**Leadership & Project Management:** Proven track record directing teams of students, researchers, and scientists in diverse projects, showcasing innovative AI-powered solutions. Successfully led teams in various projects, encompassing software development and network design.

**Mentorship and Educational Leadership (20+ Years):** Offering over two decades of expertise in providing mentorship and leadership to students while imparting knowledge in computer science.

**Academic & Specialized Skills:** Hold a Ph.D. in Computer Science from the University of Georgia, specializing in applying AI/ML to Image Analysis, image captioning, video captioning, and Computer Vision.

**Research Publication Excellence (9+ Years):** Extensive experience in publishing impactful scientific papers, reflecting a continuous commitment to advancing research in the field.

### EDUCATION

Aug 2021 **Ph.D. in Computer Science**, University of Georgia, USA  
*Advisor: Prof. Hamid R. Arabnia;*  
*Research area: Computer Vision, Deep Learning, Image/Video Captioning*  
*Thesis: "An Integrated Approach for Video Captioning and Applications"*  
Mar 2013 **M.Sc. in Information Technology Engineering, Computer Networks**, Amirkabir University of Technology (Tehran Polytechnic), Iran  
Oct 2006 **B.Sc. in Computer Engineering- Software**, Azad University, Lahijan, Iran

### MAJOR AWARDS

**Grant**

- **NIH/ National Institute on Aging (NIA)**, "AI-powered Web Application to Analyze Knee Joint Space for Aging Population" funded, total \$105,913.00, One year, 2024-2025

**Keynote Speaker**

- **CSCI 2023 Keynote Speaker**, "Integrating Advanced AI Algorithms with Scientific Articles; Large Language Models (LLMs) and Beyond", the 2023 International Conference on Computational Science and Computational Intelligence, Las Vegas, NV, USA, Dec 2023
- **Keynote Speaker**, "AI Fairness in Medical Image Segmentation", Health Informatics Grand

- Rounds, University of Pittsburgh, USA, Nov 2023
- Award**
- The University of Georgia "**Student Career Success Influencer Award 2023**", Feb 2024
  - **IEEE Atlanta Section Outstanding Educator Award**, The winner of the IEEE Atlanta Section Outstanding Educator Award, Oct 2023
  - **Outstanding Teaching Assistant (OTA) Award**, UGA, USA, Apr 2021
  - **CSCI 2019 Outstanding Achievement Award**, the 2019 International Conference on Computational Science and Computational Intelligence, Las Vegas, NV, USA, Dec 2019, **CSCI 2019 Sponsored**
  - Named a Finalist of the **2020 NCWIT (National Center for Women and Information Technology) Collegiate Award**, USA, Dec 2019
  - **NVIDIA GPU Grant, NVIDIA**, Feb 2019
  - **Best Paper Award** for "Issues of borders and security challenges in sensor networks", Regional Computing Conference on Sustainable Development of Border Security, Azad University, Shirvan Branch, North Khorasan, Iran, Mar 2014
- Scholarship**
- **Anita Borg Grace Hopper (GHC 23) Scholarship**, Virtual, USA, Sep 2023
  - **ACM Richard TAPIA Conference Scholarship**, Washington D.C., USA, Sep 2022
  - **CRA-WP Grad Cohort for Women Scholarship**, Virtual (because of COVID-19), USA, Apr 2021
  - **ACM Richard TAPIA Conference Scholarship**, Virtual (because of COVID-19), USA, Sep 2020
  - **Anita Borg Grace Hopper (GHC 19) Scholarship**, Orlando, FL, USA, Oct 2019
  - **CRA-W Grad Cohort Scholarship**, San Francisco, CA, USA, Apr 2018
  - **POOIA (Professional Organization of Iranian-Americans) Student Scholarship**, USA, Dec 2017

## SELECTED PUBLICATIONS

**Google Scholar profile:** Please Click [Here](#)

1. Matthew Gong, Logan Finger, Christina T. Letter, Soheyla Amirian, Bambang Parmanto, Michael O'Malley, Brian Klatt, Ahmad P. Tafti, Johannes F. Plate, "Development and Validation of a Mobile Phone Application for Measuring Knee Range of Motion", JKO, 2024 accepted
2. Siddiqui IA, Littlefield N, Carlson LA, Gong M, Chhabra A, Menezes Z, Mastorakos G, Thakar S, Abedian M, Lohse I, Weiss KR, Plate JF, Moradi H, **Amirian, Soheyla**, Tafti AP. 2024, " Fair AI-powered orthopedic image segmentation: addressing bias and promoting equitable healthcare", Scientific Reports, 14(1), p.16105.
3. Soheyla Amirian, Matthew Gong, Logan Finger, Johannes Plate, Ahmad P Tafti, "Development and Validation of a Smartphone App for Automated Knee Range of Motion Measurement in a Clinical Setting", AMIA 2024 Informatics Summit.
4. **Amirian, Soheyla**, Ghazaleh H, Gong M, Finger L, Carlson L, Plate JF, Tafti AP. "HexAI-TJAtxt: A Textual Dataset to Advance Open Scientific Research in Total Joint Arthroplasty", Data in Brief, 2023, ISSN 2352-3409, doi.org/10.1016/j.dib.2023.109738.
5. Littlefield N, Plate JF, Weiss KR, Lohse I, Chhabra A, Siddiqui IA, Menezes Z, Mastorakos G, Moradi H, **Amirian, Soheyla**, Tafti AP. "Learning Unbiased Image Segmentation: A Case Study with Plain Knee Radiographs". 2023 IEEE EMBS International Conference on Biomedical and Health Informatics (BHI), pp. 1-5, 2023.
6. Nickolas Littlefield, Matthew Carlson, Luke A, Gong, **Soheyla Amirian**, Weiss Kurt Lohse, Ines, Ahmad P Tafti, "A Deep Few-Shot Meta-Learning Strategy for Autonomous Classification of Bone Metastasis in Radionuclide Bone Scans", CTOS 2023
7. **Soheyla Amirian**, Luke A Carlson, Matthew F Gong, Ines Lohse, Kurt R Weiss, Johannes F Plate, Ahmad P Tafti, "Explainable AI in Orthopedics: Challenges, Opportunities, and Prospects", 2023 World Congress in Computer Science, Computer Engineering, and Applied Computing (CSCE), IEEE, DOI: 10.1109/CSCE60160.2023.00230, pp. 1374-1380, 2024
8. Shams, Afsaneh, Becker, Drew, Becker, Kyle, **Amirian, Soheyla**, Rasheed, Khaled, "Evolving Efficient CNN Based Model for Image Classification", 2023 World Congress in Computer Science, Computer Engineering, and Applied Computing (CSCE), IEEE, DOI: 10.1109/CSCE60160.2023.00041, pp. 228-235, 2024.
9. Littlefield N, Plate JF, Weiss KR, Lohse I, Chhabra A, Siddiqui IA, Menezes Z, Mastorako G, Moradi H, **Amirian, Soheyla**, Tafti AP. "AI Fairness in Hip Bony Anatomy Segmentation: Analyzing and Mitigating Gender and Racial Bias in Plain Radiography Analysis". IEEE ICHI. 2023.
10. Littlefield, Nick, Moradi, Hamidreza, Kremers, Hilal Maradit, **Amirian, Soheyla**, Plate, Johannes F., and Tafti, Ahmad P., "Enforcing Explainable Deep Few-Shot Learning to Analyze Plain Knee Radiographs", in ICHI, 2023.
11. **Amirian, Soheyla**, Ghazaleh, Husam, Assefi, Mehdi, Kremers, Hilal Maradit, Arabnia, Hamid R., Plate, Johannes F., and Tafti, Ahmad P., "Word Embedding Neural networks to Advance Knee Osteoarthritis Research", in Computational Science and Computational Intelligence; 2022 International Conference on IEEE CPS (IEEE XPLORE, Scopus), DOI Bookmark: 10.1109/CSCI58124.2022.00055, pp. 289-292, 2022.

12. **Amirian, Soheyla**, Taha, Thiab R., Rasheed, Khaled, and Arabnia, Hamid R., “Generative Adversarial Network Applications in Creating a Meta-Universe”, in Computational Science and Computational Intelligence; 2021 International Conference on IEEE CPS (IEEE XPLORE, Scopus), ISBN: 978-1-6654-5841-2, pp. 175-179, 2021.
13. **Amirian, Soheyla**, Taha, Thiab R., Rasheed, Khaled, and Arabnia, Hamid R., “An Integrated Approach for Video Captioning and Applications”, The 2021 World Congress in Computer Science, Computer Engineering, and Applied Computing (CSCE'21), IEEE, 2021.
14. **Amirian, Soheyla**, Farahani, Abolfazl, Rasheed, Khaled, Arabnia, Hamid R., and Taha, Thiab R., “The Use of Video Captioning for Fostering Physical Activity,” in Computational Science and Computational Intelligence; 2020 International Conference on IEEE CPS (IEEE XPLORE, Scopus), ISBN-13: 978-1-7281-7624-6, pp. 611-614, 2020.
15. **Amirian, Soheyla**, Rasheed, Khaled, Taha, Thiab R., and Arabnia, Hamid R., “Automatic Image and Video Caption Generation with Deep Learning: A Concise Review and Algorithmic Overlap,” in IEEE Access, vol. 8, pp. 218386-218400, 2020.
16. **Amirian, Soheyla**, Rasheed, Khaled, Taha, Thiab R., and Arabnia, Hamid R., “Automatic Generation of Descriptive Titles for Video Clips Using Deep Learning,” in Springer Nature - Research Book Series: Advances in Artificial Intelligence and Applied Cognitive Computing, Transactions on Computational Science and Computational Intelligence; Springer ID: 89066307 (Book ID: 495585\_1\_En), ISBN #: 978-3-030-70295-3, 2020, pp. 17–28.
17. Fowler, Jonathan, and **Amirian, Soheyla**, “Integrated Plant Growth and Disease Monitoring with IoT and Deep Learning Technology,” in Springer Nature - Research Book Series: Transactions on Computational Science & Computational Intelligence; Series Title: Advances in Data Science & Information Engineering, Springer ID: 89066304 (Book ID: 495582\_1\_En), 2020, ISBN #: 978-3-030-71703-2, pp. 389-395.
18. Toutiaee, Mohammadhossein, **Amirian, Soheyla**, Miller, John A., Li, Sheng, “Stereotype-Free Classification of Fictitious Faces,” in arXiv:2005.02157, 2020.
19. **Amirian, Soheyla**, Rasheed, Khaled, Taha, Thiab R., and Arabnia, Hamid R., “Image Captioning with Generative Adversarial Network,” in Computational Science and Computational Intelligence; "Artificial Intelligence" (CSCI-ISAI); 2019 International Conference on IEEE CPS (IEEE XPLORE, Scopus), 2019, ISBN -13: 978-1-7281-5584-5, pp. 272-275.
20. **Amirian, Soheyla**, Rasheed, Khaled, Taha, Thiab R., and Arabnia, Hamid R., “A Short Review on Image Caption Generation with Deep Learning”, The 23rd International Conference on Image Processing, Computer Vision and Pattern Recognition (IPC'19), World Congress in Computer Science, Computer Engineering and Applied Computing (CSCE'19), IEEE, 2019, ISBN: 1-60132-506-1, pp. 10-18.
21. **Amirian, Soheyla**, Wang, Zengyan, Taha, Thiab R., and Arabnia, Hamid R., “Dissection of deep learning with applications in image recognition,” in Computational Science and Computational Intelligence; "Artificial Intelligence" (CSCI-ISAI); 2018 International Conference on IEEE CPS (IEEE XPLORE, Scopus), 2018, ISBN-13: 978-1-7281-1360-9, pp. 1132–1138.

## EMPLOYMENT HISTORY

- Sep 2024 – present **Assistant Professor**, Seidenburg School of Computer Science & Information Systems, Pace University  
*CS 627, Artificial Intelligence – Fall 24*  
*CS 241 Data Structures and Algorithms – Fall 24*
- Nov 2022 – present **Director**, Applied Machine Intelligence Initiative and Education (AMIIE) Laboratory  
**Strategic Leadership:** *Leading more than 4 teams, each comprising 4+ members including graduates, undergraduates, and elite researchers, in the successful execution of diverse projects.*  
**Data Handling & Analysis:** *Integrating health datasets for researchers, clinicians, and surgeons, refining program features for enhanced functionality.*  
**Educational Program Enhancement:** *Enhancing educational programs through targeted support initiatives, ensuring continuous improvement.*  
**Business Development:** *Securing projects and applying for funds to ensure the lab's project success.*  
**Advanced ML/DL Implementation:** *Applying cutting-edge ML and DL techniques, including GPT-3, BERT, Word2VEC, and GAN, in crafting applications with predictive, projective, and suggestive capabilities. Implementing solutions for various projects.*  
**Efficient Project Leadership:** *Demonstrating proficiency in providing AI-powered models, ensuring efficient and successful project completion.*  
**Team Excellence:** *Assembling and mentoring a high-performing team of students and researchers tailored to project requirements. Team members progressed to elite projects.*  
**Health App Developments:** *Leading the development of a mobile application for fall detection, integrating data from images, text, sensors, and medical reports. The interactive app significantly improves patient-doctor collaboration.*  
**Impactful Health Solution:** *Implementing health applications,, offering real-time health insights and significantly enhancing patient care..*
- Aug 2021 – present **Faculty Fellow**, Institute for Artificial Intelligence
- Aug 2024 **Faculty Lecturer**, School of Computing, University of Georgia  
**Graduate Students Academic Advisor**, Fall 2023  
**Academic Leadership:** *Serve as a UGA Faculty Fellow at the Institute for Artificial Intelligence, contributing expertise to advance AI research initiatives.*  
**Teaching Excellence:** *Fulfill the role of Faculty Lecturer at the School of Computing, University of Georgia, delivering impactful lectures and shaping the next generation of computer science professionals.*

- Mentorship and Guidance:** Assume the responsibility of a Graduate Students Academic Advisor, providing valuable guidance and support to aspiring researchers in their academic pursuits.
- Student Development:** Facilitate the academic and professional development of graduate students, ensuring they are well-equipped for success in their chosen fields.
- Academic Excellence:** Contribute to maintaining the academic excellence of the School of Computing by actively participating in curriculum development and improvement initiatives.
- CSCI 2610, CSCI 2611 Discrete Mathematic – Fall 21, 22; Spring 22, 23, 24  
 CSCI 1301 Intro Computing Program (Java) – Spring 22, 23; Summer 22, 23  
 CSCI 2725, CSCI 2720 Data Structures and Algorithms – Spring 22, 24; Fall 22  
 CSCI 1360E Informatics and Data Analytics – Summer 22, 23, 24  
 CSCI 5007 Internship in CSCI – Summer 23  
 CSCI 4950 Directed Study – 21 to present  
 CSCI 4960 Faculty Mentored Research – 21 to 24  
 CSCI 6950 Directed Study – Spring 24  
 CSCI 7200 Master’s Project – Fall 23 to present  
 CSCI 7007 Intern Comp Sci Busi Indus – Fall 23
- 2017 – **Instructor of Record, Lab instructor, and Graduate Teaching Assistant**  
 2021 Computer Science Department, University of Georgia
- Instructor of Record**  
*Teaching, Designing, and implementing a classroom system to track student progress, and take steps to ensure academic progress is where it should be - ~100 students for each class*  
 CSCI 1301 Intro Computing Program (Java) – Fall 2020, Spring 2021
- Lab instructor**  
 CSCI 1301 Intro Computing Program (Java) – Spring and Summer 2020
- Graduate Teaching Assistant**  
*Supervise students during the non-classroom time and arrange recreational activities of undergraduate students; Work closely with the lead teacher to identify issues students are having and develop appropriate solutions; Attend teacher meetings; Assist with classroom instruction and provide support and guidance to students - ~100 students for each class*  
 (2017-2019) Data structure, Computer Networking, and Computer Architecture organization  
 (Jun-Dec 2018) Graduate Assistant at the Business Office, Graduate School, UGA.
- 2000 - 2016 **Faculty Lecturer**  
 Computer Science and IT Department, Kermanshah, Iran  
 (2013-2016) Course Coordinator of IT Program, Technical and Vocational University  
 (2006-2016) Lecturer, Technical and Vocational University - part-time  
 (2013-2016) Lecturer, University of Applied Science (Academic Center for Education, Culture, and Research) - part-time  
 (2000-2016) Teacher, Technical High School - full time

## HONORS, VOLUNTEER EXPERIENCES

### Honors

- **Teaching**
  - Nominated for a Franklin College **Teaching Award**, the University of Georgia, 2023
  - Nominated for a Franklin College **Teaching Award**, the University of Georgia, 2022
  - **Teaching Recognition: Thank-a-Teacher Program, Center for Teaching and Learning, University of Georgia**; reported positive teaching impact.
    - Student comment: “You have a remarkable talent for making even the most challenging topics seem exciting and ...”, Spring 2023
    - Student comment: “Thank you so much for being such a wonderful professor and person! ...”, Fall 2022
    - Student comment: “...You made Discrete math my favorite class of the semester and of my college years so far...”, Spring 2022
- Student comment: “Thank you for an excellent introduction to Computer Science. I was quite worried going into this class, but you made it manageable and did a fantastic job explaining the concepts...”, Fall 2021
- **Poster**
  - “Advancing Psychosocial Disability and Psychosocial Rehabilitation Research through Large Language Models and Computational Text Mining”, AI Research day, University of Georgia, Athens, GA, USA, April 22, 2024, **Awarded 2nd Place**
  - “Enhancing Patient Safety: A smartphone-Based Fall Detection Application”, AI Research day, University of Georgia, Athens, GA, USA, April 22, 2024
  - “Segmentation of Knee Cartilage in MRIs using Deep Learning: Building a Fully-annotated Imaging Dataset”, AI Research day, University of Georgia, Athens, GA, USA, April 22, 2024
  - “A Survey of Machine Learning: How Implementing the CIFAR-10 Dataset Prepares Young Computer Scientists for Success”, AI Research day, University of Georgia, Athens, GA, USA, April 22, 2024
  - “A Textual Dataset and Computational Text Mining for Open Scientific Research on Chronic Pain Management”, The annual research day event, School Of Computing, University of Georgia, Athens, GA, USA, Nov 17, 2023, **Awarded 1st Place**
  - “Fall Detection using Smart Phone’s Accelerometer and Gyroscope Sensor Values”, The annual research day

- event, School Of Computing, University of Georgia, Athens, GA, USA, Nov 17, 2023, **Awarded 2nd Place**
- “Segmentation of Knee Cartilage in MRIs using Deep Learning: Building a Fully-annotated imaging Dataset”, The annual research day event, School Of Computing, University of Georgia, Athens, GA, USA, Nov 17, 2023
- “Video Captioning and Applications“, CRA-WP Grad Cohort for Women, Virtual, USA, Apr 2021
- “Stereotype Free Classification in Adversarial Networks”, The 2nd Advancing Informatics in Government and Industry event, Georgia Center, University of Georgia, Athens, GA, USA, Nov 22, 2019, **Awarded**
- “Fairness Evaluation in Generative Networks”, The annual research day event, Department Of Computer Science, Memorial Hall, University of Georgia, Athens, GA, USA, Oct 25, 2019
- “Video Caption Generation with Deep Learning“, First Annual Computing@SEC, The University of Alabama, Sep 2019
- “Machine Learning for Solar Radiation Prediction”, The annual research day event, Department Of Computer Science, Georgia Center, University of Georgia, Athens, GA, USA, Apr 13, 2018

- **Paper Presentation**

- ICHI 2023, “AI Fairness in Hip Bony Anatomy Segmentation”, Huston, Texas, USA, June 2023
- “The Use of Video Captioning for Fostering Physical Activity”, International Symposium on Artificial Intelligence (CSCI-ISAI), USA, Dec 2020,
- “Automatic Generation of Descriptive Titles for Video Clips Using Deep Learning”, The 2020 World Congress in Computer Science, Computing Engineering and Applied Computing (CSCE'20), USA, July 28, 2020 (virtual, because of COVID-19 situation)
- “Image Captioning with Generative Adversarial Network”, International Symposium on Artificial Intelligence (CSCI-ISAI), USA, Dec 2019
- “ A Short Review on Image Caption Generation with Deep Learning”, International Conference on Image Processing, Computer Vision, & Pattern Recognition (ICCV'19), Las Vegas, NV, USA, Jul 2019
- “Dissection of deep learning with applications in image recognition”, 5th Annual Conf. on Computational Science & Computational Intelligence (CSCI'18), Las Vegas, NV, USA, Dec 2018

- **Sponsored and Honors**

- **GHC Faculty Scholarship, Grace Hopper Celebration 2023 (GHC 23) virtually**, September 26-29, 2023
- **CRA Level-up Workshop**, Sep 2023, Atlanta, GA
- **CSCE 2023**, The World Congress in Computer Science, Computer Engineering and Applied Computing (CSCE'23), **Sponsored**
- **The 11<sup>th</sup> Annual Faculty Women of Color in the Academy National Conference**, April 2023, Arlington, Va, Sponsored by the Provost Office and School of Computing at UGA
- **CSCI 2022**, Computational Science and Computational Intelligence; "Artificial Intelligence" (CSCI-ISAI), **Sponsored**
- **Broadening Participation in Computing (BPC) Workshop**, Aug 2022, Denver, Colorado
- **CSCE 2022**, The 18th International Conference on Frontiers in Education: Computer Science and Computer Engineering (FECS), **Sponsored**
- **CSCI 2021**, Computational Science and Computational Intelligence; "Artificial Intelligence" (CSCI-ISAI), **Sponsored**
- **CSCI 2019**, Computational Science and Computational Intelligence; "Artificial Intelligence" (CSCI-ISAI), **Sponsored**
- **CSCE 2019**, The 23rd International Conference on Image Processing, Computer Vision and Pattern Recognition (ICCV'19), **Sponsored**
- **CSCI 2018**, 5th Annual Conf. on Computational Science & Computational Intelligence (CSCI'18), **Sponsored**

- **Travel Grant**

- International Symposium on Artificial Intelligence (CSCI-ISAI), Dec 2019
- International Conference on Image Processing, Computer Vision, & Pattern Recognition (ICCV'19), Aug 2019
- Computational Science & Computational Intelligence (CSCI'18), Dec 13-15, 2018

- **Ranked**

- **Number Four** in the entrance test for B.Sc. Degree, Computer Software Engineering, Iran (2014)
- **Number One** in the entrance test for H.Dip., Computer Software, Iran (1998)

## **Volunteer Experiences**

- **GSEF**, the 76<sup>th</sup> GSEF Award Ceremony presenting the **IEEE Atlanta Section Awards**, UGA, April 2024
- **GJSHS 2023 Judge**, the 2023 Georgia Junior Science & Humanities Symposium, Feb 27, 2023
- **Judge – Poster sessions, Tapia 2022**, Washington D.C., USA, Sep 2022
- **Scholarship Reviewer**
  - **Tapia 2024 Conference, Scholarship Application Reviewer**, March 2024
  - **2023 CMD-IT/ACM Richard Tapia Celebration of Diversity in Computing Conference (Tapia 2023)**, in the role “Birds of a Feather submission Reviewer, Posters Reviewer, Scholarship Applications Reviewer, Feb 2023
  - **2022 CMD-IT/ACM Tapia Conference**, May 2022
  - **2021 CMD-IT/ACM Tapia Conference**, May 2021
- **Judge - Georgia Science and Engineering Fair**,

- The Georgia Science and Engineering Fair (GSEF) is dedicated to encouraging all Georgia's teachers and school districts to incorporate active science and engineering research into their classrooms in order to help students, March 31 - April 2, 2021; April 1, 2022
- **Special Award Judging for the 2021 Georgia Science and Engineering Fair-** US Agency for International Development Science Champion Award, March 30 - April 9, 2021

## PROFESSIONAL ACTIVITIES & OPERATIONAL SERVICES

- **Organizer of AI Insight webinar series, Sep 2024 - Present**
- **Member:**
  - **Steering Committee, and Speaker,** The 2nd Summer School on AI-Powered Medical Imaging Informatics; Object Detection and Localization in Medical Images, 2024 Summer School for High School Students, University of Pittsburgh, organized by the Computational Pathology & AI Center of Excellence (CPACE) within the School of Medicine, plus the School of Health and Rehabilitation Sciences, and IEEE Computer Society in Pittsburgh, June 24-28, 2024
  - **Organizing Committee member,** AI Research Day: AI Transforming, University of Georgia, April 22nd, 2024
  - **Program Review & Assessmt./Accreditation (ABET Committee member), and Outreach & Inclusion committee member,** University of Georgia, 2022 - 2024
  - **International Program Committee member,** ISVC'24 (19<sup>th</sup> International Symposium on Visual Computing), Oct 2024
  - **University Council member,** University of Georgia, from July 2024 – for three years
  - **IEEE ICHI Program Committee member,** ICHI 2024, Orlando, FL, USA, June 2024
  - **International Program Committee member,** ISVC'23 (18<sup>th</sup> International Symposium on Visual Computing), Oct 2023
  - **IEEE Women in Engineering member,** the World's Largest Technical Professional Organization, Feb 2023-present
  - **Search Committee member for hiring four faculty lecturers,** School of Computing, the University of Georgia, Sep 2022 – May 2023
  - **ACM Professional member,** Association for Computing Machinery, Oct 2022- Sep 2023
  - **Technical Program Committee member,** Advanced Machine Learning and Applications: Federated Learning and Meta-Learning (AML-IoT FLAME 2021), ICMLA, 20<sup>th</sup> IEEE International Conference on Machine Learning and Applications, June 2021
- **Safe AI Lead,** Pitt MOL Lab, Musculoskeletal Oncology Laboratory, UPMC, Oct 2023 – present
- **Organizer of Women in Computing (WIC) webinar series, Sep 2023 - Present**
- **Steering Committee Co-Chair,** The 2023 International Conference on Computational Science and Computational Intelligence (CSCI'23), USA, Dec 2023
- **Research Track Co-Chair of Computer Vision and AI,** The 2023 World Congress in Computer Science, Computer Engineering, and Applied Computing (CSCE'23), USA, July 2023
- **Women in Computing of Atlanta Chair,** April 2023- present
- **Extramural Collaborator,** HexAI Research Laboratory, University of Pittsburg, Aug 2022 - present
- **Conference Session Chair**
  - The 2023 International Conference on Computational Science and Computational Intelligence (CSCI'23), USA, Dec 2023
  - The 2023 World Conference in Computer Science, Computer Engineering and Applied Computing (CSCE'23), USA, Jul 2023
  - The 2022 International Conference on Computational Science and Computational Intelligence (CSCI'22), USA, Dec 2022
  - The 2022 World Conference in Computer Science, Computer Engineering and Applied Computing (CSCE'22), USA, Jul 2022
  - The 2021 International Conference on Computational Science and Computational Intelligence (CSCI'21), USA, Dec 2021
  - The 2021 World Conference in Computer Science, Computer Engineering and Applied Computing (CSCE'21), USA, Jul 2021 (virtual and in-person sessions)
  - The 2020 International Conference on Computational Science and Computational Intelligence (CSCI'20), USA, Dec 2020
  - International Symposium on Artificial Intelligence (CSCI-ISAI), USA, Dec 2019
  - International Conference on Image Processing, Computer Vision, & Pattern Recognition (ICCV'19), Las Vegas, NV, USA, Jul 2019
- **Book / Book Chapter Reviewer/Editor**
  - **Reviewer:** Data Structures and Algorithms in Java: A Project-Based Approach by Dan Myers, Cambridge University Press, Aug 2023
  - **Associate Editor:** CSCE 2023
- **Paper Reviewer/Referee**
  - Journal of Healthcare Informatics Research, 2023
  - ISVC 2023
  - AMIA Annual Symposium, 2023
  - Expert Witness (Controversial): Provided expert opinion to Springer and other publishers in cases of alleged plagiarism, demonstrating proficiency in navigating controversial topics and presenting well-reasoned arguments.
  - ICHI 2023 the 11th IEEE International Conference on Healthcare Informatics

- IEEE 2021 International Conference on Machine Learning and Applications
- The Second International Workshop on Bringing Semantic Knowledge into Vision and Text Understanding- IJCAI (Jun 2020 - present)
- IEEE Access (Jun 2019 - present)
- The Journal of Supercomputing, Springer (Mar 2019 - present)
- **Mentorship**
  - Mentee: Mary Margaret Gleason (Undergraduate Student), “Machine Learning and How Prepare a Student to Success”, 2024
  - Mentee: James Lawrence Rivera (Undergraduate Student), “Machine Learning”, 2024
  - Mentee: Rohan Swapneel Intipalli (Graduate Student), “Computational Text Mining”, 2023
  - Mentee: Dias Mashikov (Undergraduate Student), “DL and Web Application”, 2023
  - Mentee: Bryce N. Wellman (Undergraduate Student), “Machine Learning”, 2023
  - Mentee: Venkata Kandula (Graduate Student), “Text Mining”, 2023
  - Mentee: Lakshmi Megana Bojja (Graduate Student), “Mobile Application”, 2023
  - Mentee: Vaishnavi Ganjikunta (Graduate Student), “Text Mining”, 2023
  - Mentee: Vedraj Sachin Chavan (Graduate Student), “ML and Medical Images”, 2023
  - Mentee: Pavan Bodanki (Graduate Student), “Deep Learning on Medical Images”, 2023
  - Mentee: Aditya Patel (Graduate Student), “Deep Learning on Medical Images”, 2023
  - Mentee: Manoj Tumkur Shivashankar (Graduate Student), “Mobile Application”, 2023
  - Mentee: Bobby John Loganathan (Graduate Student), “Explainable AI, Computer Vision”, 2023
  - Mentee: Nikhita Mallapa Biradar (Graduate Student), “Applied ML in Healthcare”, 2023
  - Mentee: Ashutosh Kekre (Graduate Student), “Applied ML and AI”, 2023
  - Mentee: Dp Maryan Dehipitiarachchi (Undergraduate Student), “ML and Deep Learning”, 2023
  - Mentee: Catherine Kimbrell Goldman (Undergraduate Student), “AI, and its applications”, 2023
  - Mentee: Sean Nicolas Payne (Undergraduate Student), “AI, and its applications”, 2023
  - Mentee: Afsaneh Shams (PhD Student), Computer Science, “Evolutionary Neural Networks to Classify Images”, (2022- 2023)
  - Mentee: Robin Grazulis (Undergraduate Student), Terry College of Business, UGA, Chapter Leader, Harm Reduction Chair, “Ethics in AI world”, 2023
  - Mentee: Jacob Glover (Undergraduate Student), Computer Science, “Machine learning Applications using Python libraries and statistical software.”, 2022
  - Mentee: Christopher Rountree Hunter (Undergraduate Student), Computer Science, “Learning principles and application of machine learning to be applied to real world data sets and models”, 2022
  - More than 30 students, 2000 - 2016

## INVITED TALKS & GUEST LECTURE

- Invited Talks**
- **Lightning Talk:** “AI Transforming”, AI Research day, UGA, USA, April 2024
  - **Lightning Talk:** “AI in Health”, AI and Data Science Across Disciplines Symposium, UGA, USA, Nov 2023
  - **Invited Panelist:**
    - “Code switching vs authentic self: Are you keeping it real?”, IEEE Women in Engineering 2024
    - The 3<sup>rd</sup> Annual Deep Learning Workshop, the Office of Statistical Consulting and Training Marquette University, Milwaukee, WI, USA, Mar 2023
    - Graduate Faculty Panel, International Student Orientation, University of Georgia, Athens, Georgia, USA, Aug 2022
    - Data4Good and Girls Who Code (Women in Tech), University of Georgia, Athens, Georgia, USA, Oct 2021
    - Panel discussion of challenges of living as an international in a foreign country, a different language and a different educational environment and culture in the Computer Science Students Orientation, University of Georgia, Aug 12, 2019
    - Panel discussion of challenges of living as an international in a foreign country, a different language and a different educational environment and culture in the Computer Science Students Orientation, University of Georgia, Aug 08, 2018
    - Panel discussion of challenges of living as an international in a foreign country, a different language and a different educational environment and culture in the International Graduate Student Orientation, University of Georgia, Aug 01, 2018
  - “A Hybrid Teaching Approach for STEM Education”, The 18<sup>th</sup> International Conference on Frontiers in Education: Computer Science and Computer Engineering (FECS), CSCE’2022, Las Vegas, Nevada, USA, Jul 2022
  - **Invited Guest Presenter:**
    - “Opportunities and Challenges with Video Captioning”, in Computational Science and Computational Intelligence (CSCI’20); “Artificial Intelligence” (CSCI-ISAI); International Conference on IEEE CPS (IEEE XPLORE, Scopus), Las Vegas, NV, USA, Dec 17, 2020
    - 2020 UGA TA Orientation (with 650+ students), Aug 2020
    - International TA Orientation: Key teaching assistant policies for international TAs and provide resources related to successful teaching and learning practices, University of Georgia, Aug 07 & 13, 2019
    - Encouraging students, especially girls to study at the Computer Science, County High School, Athens,

GA, USA, April 2019

- Guest Lecture**
- “Graphs Applications”, the University of Pittsburgh, USA, Dec 2022
  - GRSC, Computer Science Department, Athens, GA, USA, Sep 11, 2019
  - An Introduction of Robotics, Computer Science Department, Middle School Students, Athens, GA, USA, Jun 5, 2019)
  - An Introduction of Robotics, Computer Graphics class, Undergraduate and Graduate level, Computer Science Department, University of Georgia, Aug 2017

## CERTIFICATIONS, ADDITIONAL SKILLS, & ACTIVITIES

- Additional Education & Certificates**
- Becoming a Product Manager: A Complete Guide (2022, Linked-in Learning)
  - Technical Product Management (2022, Linked-in Learning)
  - NLP with Python for Machine Learning Essential Training (2019, Lynda.com)
  - Neural Networks and Convolutional Neural Networks Essential Training (2018, Lynda.com)
  - Python (2015, Michigan University)
  - Cloud Computing (2014)
  - Microsoft Service Providers Manager (2008)
  - Network Security General Technician, Windows-NT manager (2007)
  - Business Skills, Setting up the network structure for a department (2006)
  - Management, Microsoft Excel (2004)
  - Producing applications for two organizations (2001)

**Technical Skills**

Specialize in **Image Processing, Deep Learning, Image and Video Captioning**, Machine Learning, Computer Graphics, Instructional Technology, Networks, Cyber Security, and Computer Networks Administration. Productive in both team-based and self-managed projects; dedicated to maintaining up-to-date knowledge and IT skills. Currently, investigating new ways of utilizing Deep Learning methodologies.

Proficient in the following tools/equipment/software:

Different Programming Languages; SQL Server; 3DMax; Hadoop, Packet tracer, OpNet as Network Application Software.

**Language Skills**

Persian (native), English, French, German, Arabic

## PROFESSIONAL MEMBERSHIPS

- Institute of Electrical and Electronics Engineers (IEEE) Member
- American Medical Informatics Association (AMIA) Member