

## CURRICULUM VITAE

### A) NAME:

**Ali Arya**

### B) EDUCATION:

#### a. Degrees

- 2003, **Ph. D.**, Computer Engineering, *University of British Columbia*, Vancouver, BC, Canada
  - Thesis: Personalized Face Animation Framework for Interactive Multimedia Systems
- 1989, **Bachelor of Science**, Electrical Engineering, *Tehran polytechnic*, Tehran, Iran

#### b. Awards

- Carleton University Faculty Graduate Mentorship Award, 2019
- Faculty of Engineering and Design, Teaching Excellence Award, 2019
- SFU Post-doctoral Fellowship, 2004
- UBC Teaching Assistant Award, 2002

### C) EMPLOYMENT EXPERIENCE:

#### a. Academic

- February 2018 – Present: Carleton University  
**Associate Dean (Planning and Awards), FGPA**
- August 2006 - Present: Carleton School of Information Technology,  
**Associate Professor**
- September 2003 - February 2005: School of Interactive Arts and Technology, Simon Fraser University, Vancouver, BC  
**Post-doctoral Fellow and Sessional Instructor**
- September 2000 - September 2003: Department of Electrical and Computer Engineering, University of British Columbia, Vancouver, BC  
**Research Assistant and Sessional Instructor**

#### b. Other

- February 2005 - March 2006: iMediaTek Interactive Media Technologies, Vancouver, BC  
**Project Manager and Chief Software Architect**
- October 2005 - February 2006: CGA Canada, Vancouver, BC  
**Project Manager**

- February 1998 - December 1999: Honeywell-Measurex Devron, Inc. Vancouver, BC  
**Project Manager and Systems Engineer**
- February 1996 - December 1997: Farine Co., Tehran, Iran  
**Project Manager and Systems Engineer**
- December 1992 - February 1996: Nezam Corp., Tehran, Iran  
**System Analyst, Software Developer, Hardware Specialist**
- August 1990 - December 1992: Tehran Cybernetic Arm, Tehran, Iran  
**Research Engineer**

#### D) TEACHING

##### a. Courses Taught

- IMD-3006, Software Design for Multimedia Applications
  - Winter 2019 (newly designed, offered for the first time)
- ITEC-5000, Analytical Methods for Information Technology
  - Fall 2018 (newly designed, offered for the first time)
- ITEC-6200, Interdisciplinary Research in Digital Media
  - Fall 2017 (newly designed, offered for the first time)
- IMD-4900/4902, Design Studio 4
  - Fall 2006-11, 2013-14
- IMD-2004/BIT-2400, Intermediate Programming
  - Summer 2017 (online)
  - Fall 2007-17 (except 2012)
- IMD-1003/BIT-1400, Computer Programming
  - Summer 2017, Winter 2018
  - Winter 2009, 2011, 2015, 2016
- SYSC-5807/5409, Interactive Media and Digital Art
  - Winter 2008, 2010, 2012, 2014, 2016

##### b. Graduate Supervision

- Ph.D. Students
  - In Progress: 9 (4 of them with co-supervisor)
  - Completed: 4
- Masters Students
  - Completed: 13 (2 of them with co-supervised)

c. Undergraduate Research

- Assistants in Research Projects: 33
- Directed Study Students: 32

## E) PUBLICATIONS (since 2013)

**Journals**

1. Anthony Scavarelli, Ali Arya, and Robert Teather, "Virtual Reality and Augmented Reality in Social Learning Spaces: A Literature Review," *Virtual Reality*, 2020
2. Gerry Chan, Ali Arya, Rita Orji, Zhao Zhao, "Motivational Strategies and Approaches for Single and Multi-Player Exergames," *PeerJ Computer Science*, 2019
3. Andrés.A. Navarro-Newball, Isidro.Moreno, Ali Arya, Edmond C.Prakash, Efetobore.Mike-Ifeta, Juan D.Mejia, "An Interactive Modelling Architecture for Education and Entertainment at Museums", *DYNA Journal of Engineering and Industry*, 2016
4. Seyed Ali Etemad, Ali Arya, "Expert-driven Perceptual Features for Modeling Style and Affection in Human Motion", *IEEE Transactions on Human-Machine Systems*, 2016
5. Amirsam Khataei and Ali Arya, "Personalized Presentation Builder for Persuasive Communication," *ACM SIGDOC's Communication Design Quarterly*, 2015.
6. Andrés Adolfo Navarro Newball, Isidro Moreno, Edmond Prakash, Ali Arya, Victoria E. Contreras, Víctor Hernan Arcila, "Gesture based human motion and game principles to aid understanding of science and cultural practices" *Multimedia Tools and Applications*, January 2015
7. Seyed Ali Etemad, Ali Arya, Avi Parush, Steve DiPaola, "Perceptual Validity in Animation of Human Motion: An Inclusive Paradigm", *Computer Animation and Virtual Worlds*, 2014.
8. Seyed Ali Etemad, Ali Arya, "Correlation Optimized Time Warping for Motion", *The Visual Computer*, 2014.
9. Ali Arya, Jeff Chastine, Allan Fowler, Jon Preston, "An International Study on Learning and Process Choices in the Global Game Jam," *International Journal of Game-Based Learning*, 2013
10. Seyed Ali Etemad, Ali Arya, Avi Parush, "Additivity in Perception of Affect from Limb Motion", *Neuroscience Letters*, Vol. 558, pp. 132-136.
11. Seyed Ali Etemad, Ali Arya, "Classification and Translation of Style and Affect in Human Motion using RBF Neural Networks", *Neurocomputing*, Vol. 129, pp. 585-595.

12. Seyed Ali Etemad, Ali Arya, "Extracting Movement, Posture, and Temporal Style Features from Human Motion", *Biologically Inspired Cognitive Architectures*, Vol. 7, pp. 15-25.
13. Nuket Nowlan and Ali Arya, "The Effect of Perceived Ease of Use on Virtual Team Performance," *International Journal of Ubiquitous Learning*, January 2013

### **Refereed Conferences**

1. Hawes, Daniel, et al. "Assessing the Value of 3D Software Experience with Camera Layout in Virtual Reality." *IEEE International Conference on Artificial Intelligence and Virtual Reality (AIVR)*. IEEE, 2019.
2. Anthony Scavarelli, Ali Arya, and Robert Teather, "Circles: Exploring Multi-platform Accessible Socially Scalable VR in the Classroom," *IEEE GEM Conference*, 2019
3. Anthony Scavarelli, Ali Arya , Rob Teather, "Towards a Framework on Accessible and Social VR in Education," *IEEE VR Poster Session*, 2019
4. Eric Spero, Milica Stojmenović, Ali Arya, and Robert Biddle, "Learning with Trees: A Non-Linear E-Textbook Format for Deep Learning," *HCI*, Orlando, USA, 2019
5. Ali Arya, Susan Gold, Matthew Farber, Kevin Miklasz, "GGJ-Next: The Global Game Jam for Youth," *International Conference on Game Jams, Hackathons, and Game Creation Events (ICGJ)*, San Francisco, USA, March 16-17, 2019
6. Eric Spero, M. Stojmenović, Ali Arya, Robert Biddle, "CREATING A NON-LINEAR TEXTBOOK FORMAT TO FACILITATE DEEP LEARNING," *International Technology, Education and Development Conference (INTED)*, 2019
7. Ali Arya, Susan Gold, Matthew Farber, Kevin Miklasz, "EDUCATING THE NEXT GENERATION OF LEARNERS THROUGH A GLOBAL GAME JAM," *International Technology, Education and Development Conference (INTED)*, 2019
8. Bethany Dunfield, Anthony Whitehead, Ali Arya, "Event-based Model of Narrative Structure for Games," *IEEE GEM*, 2018
9. Nuket Nowlan, Peggy Hartwick, Ali Arya, "Skill Assessment in Virtual Learning Environments," *IEEE CIVEMSA*, 2018
10. Gerry Chan, Ali Arya, and Anthony Whitehead, "Keeping Players Engaged: A Personality Matchmaking Approach," *ACM CHI, Poster Session*, 2018
11. Amirsam Khataei, Ali Arya, Mike Hine, "User Trust Graph: A Model to Measure Trustworthiness," *Persuasive Technologies Conference, Personalization workshop*, 2018

12. Reza GhasemAghaei, Ali Arya, and Robert Biddle, Affective Walkthroughs and Heuristics: Evaluating Minecraft Hour of Code, published at Lecture Notes in Computer Science (LNCS), *Proceedings of the 19th International Conference on Human-Computer Interaction International (HCII'17)*, Vancouver, Canada, 2017
13. Zhao Zhao, Ali Arya, Anthony Whitehead, Ali Etemad, Gerry Chan, "KEEPING USERS ENGAGED THROUGH FEATURE UPDATES: A LONG-TERM STUDY OF USING WEARABLE-BASED EXERGAMES," ACM CHI 2017
14. Zhao Zhao, Ali Etemad, Anthony Whitehead, Ali AAmirsam Khataei, Ali Aryarya, "KEEPING USERS ENGAGED: A LONG-TERM STUDY OF WEARABLE-BASED GAMIFIED EXERCISE APPLICATIONS," ACM CHIPlay Posters 2016
15. Arya, Ali, and Ryan Bottriell. "A Distributed Framework for Location-oriented Motion-based Interactive Public Installations and Games." Proceedings of the 2016 ACM on Interactive Surfaces and Spaces. ACM, 2016.
16. Reza GhasemAghaei, Ali Arya, and Robert Biddle, "MADE RATIO: A EFFECTIVE MULTIMODAL SOFTWARE FOR MATHEMATICAL CONCEPTS," HCII 2016
17. Ali Arya, Jesse Gerroir, Efetobore Mike-Ifeta, Andres Adolfo Navarro-Newball, Edmund Prakash, "MESEUM: PERSONALIZED EXPERIENCE WITH NARRATIVE VISUALIZATION FOR MUSEUM VISITORS," HCII-2016
18. Reza GhasemAghaei, Robert Biddle, and Ali Arya. A Dashboard for Affective E-learning: Data Visualization for Monitoring Online Learner Emotions, AACE, EdMedia2016, World Conference on Educational Media and Technology, Vancouver, British Columbia, Canada: June 28-30, 2016 (pdf).
19. Reza GhasemAghaei, Robert Biddle, and Ali Arya. Evaluating Software for Affective Education: A Case Study of Affective Heuristics, AACE, EdMedia2016, World Conference on Educational Media and Technology, Vancouver, British Columbia, Canada: June 28-30, 2016.
20. Zhao Zhao, S. Ali Etemad, and Ali Arya "Gamification of Exercise and Fitness using Wearable Activity Trackers" ISCSS 2015, International Symposium on Computer Science in Sport (ISCSS 2015), September 09-11, 2015, Loughborough, UK
21. Reza GhasemAghaei, Ali Arya, and Robert Biddle. Design Practices for Multimodal Affective Mathematical Learning. In IEEE CSSE: 20th International Symposium on Computer Science and Software Engineering, Tabriz, Iran, 2015.

22. Reza GhasemAghaei, Ali Arya, and Robert Biddle. The made framework: Multimodal software for affective education. In Ed-Media: World Conference on Educational Media and Technology, Montreal, Canada, 2015. Association for the Advancement of Computing in Education.
23. Reza GhasemAghaei, Ali Arya, and Robert Biddle. Multimodal software for affective education: UI design. In Ed-Media: World Conference on Educational Media and Technology, Montreal, Canada, 2015. Association for the Advancement of Computing in Education.
24. Reza GhasemAghaei, Ali Arya, and Robert Biddle. Multimodal software for affective education: UI evaluation. In Ed-Media: World Conference on Educational Media and Technology, Montreal, Canada, 2015. Association for the Advancement of Computing in Education.
25. Anthony Scavarelli and Ali Arya, "An Exploration of Shape in Crowd Computer Interactions" HCII 2015, LA, 2-7 Aug
26. Xiao Du and Ali Arya, "Design and Evaluation of a Learning Assistant System with Optical Head Mounted Display" HCII 2015, LA
27. Amirsam Khataei and Ali Arya, "Persuasive Presentation Builder: The Individualization Factor, " HCII 2015
28. Amirsam Khataei and Ali Arya, Personalized Presentation Builder for Persuasive Communication," presented in Symposium on Communicating Complex Information (SCCI), February 22-23, 2015.
29. Anthony Scavarelli and Ali Arya, "CINDR: A proposed framework for ethical systems in video games," Games Media Entertainment (GEM), 2014 IEEE , vol., no., pp.1,5, 22-24 Oct. 2014
30. Ali Arya and Luciara Nardon, "GOOGLE IT: CRITICAL THINKING AND PROBLEM SOLVING IN THE INTERNET AGE," Proceedings of EduLearn, Barcelona, Spain, July 7-9, 2014
31. Amirsam Khataei and Ali Arya, "Personalized Presentation Builder", Poster Session, ACM CHI, 2014
32. Seyed Ali Etemad and Ali Arya, "Mining Expert-driven Models for Affective Motion", ACM CHI (Workshop on Gesture-based Interaction Design: Communication and Cognition), 2014
33. Xiaofeng Yong and Ali Arya, "Empirical Study and Design of Multimodal Ambient Assisted Comfort Services for Senior Citizens, " Multimedia and Human-Computer Interaction (MHCI), Prague, Czech Republic, 2014
34. Allan Fowler, Susan Gold, Miriam Eladhari, & Ali Arya, "Global Game Jam workshop, In Proceedings of DiGRA 2013: Defragging Game Studies, Atlanta, GA.
35. Allan Fowler, Foad Khosmood & Ali Arya, "The evolution and significance of the Global Games Jam," FDG 2013 workshop on GGJ

36. Fowler, A., Khosmood, F., Arya, A., & Lai, G. (2013). The Global Game Jam as a venue for teaching and learning, In M. Lopez & M. Verhaart (Eds.) Proceedings of the 4th Annual Conference of Computing and Information Technology, Education and Research in New Zealand (incorporating 26th Annual NACCQ), Hamilton, New Zealand.
37. Etemad, S. A., Arya, A., "A Customizable Time Warping Method for Motion Alignment", Proc. 7th IEEE Int. Conf. on Semantic Computing (ICSC'13), Irvine, USA, pp. 387-388, 2013.
38. Etemad, S. A., Arya, A., "Motion Style Translation with Radial Basis Function Networks", Proc. Int. Conf. on Multimedia and Human Computer Interaction (MHCI'13), Toronto, Canada, No. 36, 2013.
39. Etemad, S. A., Arya, A., "Perceptually Valid Motion for Avatars", Proc. Int. Conf. on Multimedia and Human Computer Interaction (MHCI'13), Toronto, Canada, No. 72, 2013.
40. Farzin Farhadi-Niaki, Seyed Ali Etemad, Ali Arya, "Design and Usability Analysis of Gesture-based Control for Common Desktop Tasks", 15th International Conference on Human-Computer Interaction (HCII-13), Las Vegas, USA, July 21-26, 2013.
41. Farzin Farhadi-Niaki, Ali Arya, Jesse Gerroir, Seyed Ali Etemad, Robert Laganieri, P. Payeur, Robert Biddle, "Usability Study of Static/Dynamic Gestures and Haptic Input as Interface to 3D Games", 6th International Conference on Advances in Computer-Human Interactions (ACHI-13), Nice, France, February 24 to March 1, 2013

## F) ADMINISTRATIVE DUTIES

### School Level

- Associate Director – Graduate Studies (2016-2018)
- Graduate Coordinator, 2013-2016
- IMD Program Coordinator, 2008-2011, 2014
  - Joint Academic Council and Curriculum Committee as the result
- IMD Senior Project Coordinator, 2006-2011 & 2013-2016
- CSIT Computing Committee, 2013-2015
- Senate Representative, fall 2007 to Spring 2010, and since fall 2016
- Appeal Committee Chair, fall 2006 to Fall 2009
- Website Committee, since Fall 2006
- Recruitment Committee and Recruitment Activities, since Fall 2006
- Portfolio Committee and Portfolio Reviews, since Fall 2006
- Tenure Committee, Fall 2008 and Fall 2010

- Global Game Jam Organizer, since Fall 2008 (Game development competition run in 48 hours on the same weekend globally. Hosted in Ottawa by CSIT)
- Advisor and curriculum consultant of a multimedia professional training program for aboriginal youth (Indigenous Culture and Media Innovations)

### **Faculty Level**

- Virtual Ventures Committee, 2009-2011
- Promotion Committee, Winter 2009 and 2017

### **University Level**

- Associate Dean (Planning) FGPA, since February 2018
- Aboriginal Affairs Taskforce, Academic/Research Committee, 2009-2011
- Senate Educational Equity Committee, 2008-2011
- Aboriginal Vision Committee, Fall 2008 to Fall 2009
- School of Journalism and Communication Hiring Committee, Winter 2009

## **G) PROFESSIONAL HONOURS AND EXTRA-UNIVERSITY ACTIVITIES**

- Curriculum Committee Member, GlobalGameJam-Next (GGJ for children), since 2017
- Chair, Global Game Jam Research Committee, 2012-2013
  - Member since 2013
- Member of the Management Board, Centre for Indigenous Research, Culture, Language and Education (CIRCLE), Carleton University, since 2007
- Member of the Editorial Board, International Journal of Computer Games Technology, since 2007
- Member of Program Committee, ACM GI 2019
- Member of Program Committee, IEEE VR, since 2017
- Member of Program Committee, IEEE GEM, since 2018
- Member of Program Committee, ACM SUI 2016-2017
- Member of Program Committee, EUROMEDIA Since 2011
- Member of Program Committee, VS-Games Since 2013
- Member of Program Committee, GET Since 2013

## **H) MEMBERSHIP IN PROFESSIONAL SOCIETIES**

- Senior Member, IEEE, since 2006 (Student Member and Member since 1993)
- Member, ACM, since 2007