

# Curriculum Vitae

## Katayoon Etemad

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### Current Position

- **Winter 2018 - present:** Research Associate, Department of Computer Science, University of Calgary.
- **Winter 2018 - present:** Visualization Consultant, Vizworx Inc, Calgary.

### Education

**2010 - 2015:** PhD in Computer Science, University of Calgary, Canada (GPA: 4.0). Thesis title: “Graph Visualizations Inspired by Alternative Aesthetics”.

**2007 - 2009:** MSc in Computer Science, University of Calgary, Canada (GPA: 4.0). Thesis title: “Node Focused Visualization of Large Trees”.

**1988 - 1993:** B.Sc in Applied Mathematics Majored in Computer Science, Sharif University of Technology, Tehran Iran.

### Research Interests

- Information Visualization
- Scientific Visualization
- Computational Aesthetics
- Human Computer Interaction

### Awards

- CMD travel award, Fall 2014.
- Faculty of Graduate Studies Travel Award, October 1, 2014.
- Queen Elizabeth II Graduate Student Scholarships, Computer Science Department, University of Calgary, 2014.
- The NSERC Post Graduate Scholarship-Doctoral (PGSD) 2010-2013.
- Department Research Awards Computer Science Department, University of Calgary, 2012.
- Alberta Graduate Student Scholarships, University of Calgary, Winter 2009.
- Departmental Research Awards Computer Science Department, University of Calgary, 2009.
- Departmental Research Awards Computer Science Department, University of Calgary, 2008.
- Queen Elizabeth II Graduate Student Scholarships, Computer Science Department, University of Calgary, 2008.

### Thesis

- **Etemad, K.** Graph Visualizations Inspired by Alternative Aesthetics. *PhD thesis, University of Calgary. Calgary Alberta, Canada, April, (2015). Supervisor: Sheelagh Carpendale.*
- **Etemad, K.** Node Focused Visualization of Large Trees. *Master's thesis, University of Calgary. Calgary Alberta, Canada, December, (2009). Supervisor: Sheelagh Carpendale.*

## Peer-reviewed publications

- Tripathi, G., **Etemad, K.**, and Samavati, F. "Single image summary of time-varying Earth-features", *In WSCG 2018 proceedings, Computer Science Research Notes*, pp.68-77, 2018
- Wroblewski, B., Ivanov, A., Eidelberg, E., **Etemad, K.**, Gadbois, D., and Jacob, C. "Lucida: Enhancing the Creation of Photography Through Semantic, Sympathetic, Augmented, Voice Agent Interaction." *In International Conference on Human-Computer Interaction*, pp. 200-216. Springer, Cham, 2018.
- Dadkhahfard, S., **Etemad, K.**, Brosz, J. and Samavati, F.F., "Area Preserving Dynamic Geospatial Visualization on Physical Globe", *VISIGRAPP: 13th International Joint Conference on Computer Vision, Imaging, and Computer Graphics Theory and Applications*, (10 pages), Jan 2018.
- Samavati, F., Sherlock, M., and **Etemad, K.** "Creative Visualization in Discrete Global Grid System", Poster in *AGU "American Geophysical Union" fall meeting, in San Francisco*, December 2016.
- **Etemad, K.**, Carpendale S., and Samavati, F.F., "Artistic Inspired Data Visualization Process", *International Symposium on Computational Aesthetics in Graphics, Visualization, and Imaging (CAe'16)*, Lisbon, Portugal, May 2016.
- **Etemad, K.**, Samavati, F. and Carpendale, S. "Daisy Visualization for Graphs", *International Symposium on Computational Aesthetics in Graphics, Visualization, and Imaging (CAe'16)*, Lisbon, Portugal, pp. 103-112, May 2016.
- **Etemad, K.**, Baur, D., Brosz, J., Carpendale, S., and Samavati, F.F., "PaisleyTrees: A Size-Invariant Tree Visualization", *Creative Technologies, Vol. 1, No. 1, European Alliance for Innovation (EAI) Endorsed Transactions on Creative Technologies, Institute for Computer Sciences, Social Informatics and Telecommunications Engineering (ICST)*, pp. 1-14, Oct 2014.
- **Etemad, K.**, Carpendale, S., and Samavati, F. "Node-Ring Graph Visualization Clears Edge Congestion", *In Proceedings of the IEEE VIS 2014 Arts Program (VISAP)*, pp. 67-74, Paris, France, Nov 2014.
- **Etemad, K.**, Carpendale, S., and Samavati, F. "Spirograph inspired visualization of ecological networks", *In Proceedings of the ACM/Eurographics Symposium on Computational Aesthetics in Graphics, Visualization, and Imaging*. pp. 81-89, Vancouver Canada 2014.
- **Etemad, K.**, and Rogers, L. "Rising Symmetry", *In Computational Media Design Journal, Vol 3*, pp. 134-141, December 2011.
- **Etemad, K.**, Rogers, L., and Carpendale S. "Transition: Contemplative Interactive Art", *In Computational Media Design Journal, Vol 2*, pp. 148-151, June 2011.
- **Etemad, K.** and Carpendale, S. "Symmetry and Node Focused Visualization of Large Trees", *In GRAND NCE Annual conference*. Ottawa, Canada, May 2010.
- **Etemad, K.** and Carpendale, S. "ShamsehTrees: Providing Hierarchical Context for Nodes of Interest", *In Proceedings of Bridges 2009: Mathematics, Music, Art, Architecture, Culture*. (Craig S. Kaplan and Reza Sarhangi, Ed.) Tarquin Books, pp. 293-300, Banff, Canada, 2009.
- **Etemad, K.**, Samavati, F. and Prusinkiewicz, P. "Animating Persian Floral Patterns", *In Proceedings of the Fourth Eurographics conference on Computational Aesthetics in Graphics, Visualization and Imaging*, pp. 25-32, Lisbon, Portugal, 2008.

## Presentations

- **Etemad, K.**, Daisy Visualization for Graphs, *In the Fourth Workshop on Digital Earth, A Discrete Global Grid Approach, July 11-12, The Banff Centre, Banff, Alberta, Canada. (Invited Speaker)*, (2016).
- **Etemad, K.**, Artistic Inspired Data Visualization Design Process, *In ACM/Eurographics Symposium on Computational Aesthetics in Graphics, Visualization, and Imaging Bridging, Lisbon, Portugal, (May 2016)*.
- **Etemad, K.**, Daisy Visualization for Graphs, *In ACM/Eurographics Symposium on Computational Aesthetics in Graphics, Visualization, and Imaging 2016, Lisbon, Portugal, (May 2016)*.
- **Etemad, K.**, Graph Visualizations Inspired by Alternative Aesthetics, *In the Third Workshop on Digital Earth, A Discrete Global Grid Approach, July 3-5, 2015, The Banff Centre, Banff, Alberta, Canada. (Invited Speaker)*

- **Etemad, K.**, Node-Ring Graph Visualization Clears Edge Congestion, *In IEEE VIS Arts Program (VISAP), Paris, France, (November, 2014).*
- **Etemad, K.**, Spirograph inspired visualization of ecological networks, *In ACM/Eurographics Symposium on Computational Aesthetics in Graphics, Visualization, and Imaging 2014, Vancouver, Canada, (August, 2014).*
- **Etemad, K.**, Symmetry and Node Focused Visualization of Large Trees., *In GRAND NCE Annual conference, Ottawa, Canada (May, 2010).*
- **Etemad, K.**, ShamsheTrees: Providing Hierarchical Context for Nodes of Interest, *Bridges 2009: Mathematics, Music, Art, Architecture, and Culture Conference. Banff, Canada. (July 2009).*

## **Exhibitions and Posters**

- Graph Visualizations Inspired by Alternative Aesthetics. *Poster in CPSC Industry Day University of Calgary (2015).*
- Rising Symmetry, *Part of 2009 Grey Cup Festival Illumination. Stephen Avenue Mall, Calgary (November 2009).*
- Transition, *Part of Giraf4. The Giant Incandescent Resonating Animation Festival, at Quickdraw Animation Society, Calgary, (November 2008).*
- Transition, *Part of the Computer and the Arts exhibition, Sculpturing Gallery, University of Calgary, (May 2008).*

## **Services and Volunteer Jobs**

- **November 2013 – present:** Secretary of Computer Science Chapter of the University of Calgary Alumni Association.
- **October 2012 – 2013:** Graduate Student Association Representative, Computer Science Department, University of Calgary.
- Reviewer of Graphics Interface (GI), 2013.
- **January 2011-January 2014:** Co-Organizer of the Computational Media Design Program, Computer Science Department, University of Calgary.
- **March 2013-January 2014:** Student Representative in the Computational Media Design steering committee, Computer Science Department, University of Calgary.
- **June 2012-January 2015:** Innovis lab meeting coordinator, Computer Science Department, University of Calgary.
- **January 2011-September 2013:** Interactions lab meeting coordinator, Computer Science Department, University of Calgary.
- **January 2012 – Aril 2012:** Co-organizer workshop series, in Computational Media Design, Computer Science Department, University of Calgary.
- **May 2010:** Organizer and instructor of a workshop series in MAYA for Computational Media Design students, Computer Science Department, University of Calgary.

## **Work Experiences**

- **Fall 2016 – Winter 2018:** Postdoctoral Fellow, University of Calgary.
- **Spring 2013 – present:** Digital Visualization Consultant, at GRVis Inc Calgary.
- **Fall 2007 – 2015:** Research Assistant, University of Calgary.

- **Winter 2007:** Teaching Assistant, Fundamental of Computer Animation (CPSC587). Computer Science Department, University of Calgary.
- **2006 – 2007:** Sessional faculty at Alberta College of Art and Design (ACAD), instructor of the 3D animation course, MADT308.
- **Fall 2005:** Modeling, designing and animation for CAD/CAM, Dynasty Inc., Calgary, Alberta.
- **1993 – 2000:** Computer Graphic Expert, Kian Ketab LTD, Tehran, Iran.
  - Architectural drafting, using AutoCAD.
  - Designing fonts and ornaments.
  - Calligraphy with AutoCAD.
- **1996 – 2000:** Computer Instructor, Technical Schools, Vahdat, Zeinab, Fatima and Saba, Tehran, Iran.  
Course taught:
  - Pascal programming language (5 semesters).
  - C programming language (2 semesters).
  - Drafting using AutoCAD.
  - PhotoShop (2 semesters).
  - FoxPro Data base (4 semesters).
  - Basic programming language (4 semesters).
- **1993-1996:** PhotoShop Expert, Contract based photo editing, Hamahang Studio, Tehran, Iran.

## **Computer Skills**

**Software:** MAYA, 3DsMax, AutoCAD, ArchiCAD, PhotoShop, MS Office, LaTeX.

**Languages:** Processing, JAVA, C, MEL, Pascal, VBASIC, METAFONT.