

# Curriculum Vitae

## Katayoon Etemad

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### 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

- Graph Visualization and Analytics
- Aesthetics in Information Visualization
- Computational Aesthetics
- Computer Graphics and Animation
- Interface Design and Evaluation

### Awards

- CMD travel award (\$1000), Fall 2014.
- Faculty of Graduate Studies Travel Award (\$1500), October 1, 2014.
- Queen Elizabeth II Graduate Student Scholarships, Computer Science Department, University of Calgary, (\$15000), 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).*
- **Etemad, K.** Node Focused Visualization of Large Trees. *Master's thesis, University of Calgary. Calgary Alberta, Canada, December, (2009).*

## Peer-reviewed publications

- **Etemad, K.**, Samavati, F. and Carpendale, S. Artistic Inspired Data Visualization Design Process. *In proceedings of the ACM/Eurographics Symposium on Computational Aesthetics in Graphics, Visualization, and Imaging, Bridging. (CAe'16)* Lisbon, Portugal.
- **Etemad, K.**, Samavati, F. and Carpendale, S. Daisy Visualization for Graphs. *In proceedings of the ACM/Eurographics Symposium on Computational Aesthetics in Graphics, Visualization, and Imaging. (CAe'16)* Lisbon, Portugal, pp. 103-112.
- **Etemad, K.**, Baur, D., Brosz, J., Carpendale, S. and Samavati, F. PaisleyTrees: A Size-Invariant Tree Visualization. *European Alliance for Innovations (journal), Creative Technologies, Vol. 14, No. 1, (2014).*
- **Etemad, K.**, Carpendale, S. and Samavati, F. Node-Ring Graph Visualization Clears Edge Congestion. *In Proceedings of the IEEE VIS Arts Program (VISAP), pp. 67-74 Paris France 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. (CAe'14) (Vancouver Canada August 2014), pages 81-89.*
- **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, (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, 2016, The Banff Centre, Banff, Alberta, Canada. (Invited Speaker)*
- **Etemad, K.**, Artistic Inspired Data Visualization Design Process, *In ACM/Eurographics Symposium on Computational Aesthetics in Graphics, Visualization, and Imaging Bridging, 2016, 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 November, 2014.*
- **Etemad, K.**, Spirograph inspired visualization of ecological networks, *In ACM/Eurographics Symposium on Computational Aesthetics in Graphics, Visualization, and Imaging 2014, Vancouver August, 2014.*
- **Etemad, K.**, Symmetry and Node Focused Visualization of Large Trees., *In GRAND NCE Annual conference, Ottawa, May, 2010.*
- **Etemad, K.**, ShamsehTrees: Providing Hierarchical Context for Nodes of Interest, *Bridges 2009: Mathematics, Music, Art, Architecture, and Culture Conference. Banff, Alberta, Canada. July 2009.*

## Exhibitions and Posters

- **Etemad, K.** 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 – Present**: Postdoctoral Fellow, University of Calgary.
- **Spring 2013 – present**: Digital Visualization Consultant, at GRVis Inc.
  - Research and development of various novel and aesthetic visualizations for future commercialization.
  - Client based project work developing a novel visualization for labeling in mapping systems for energy sector.
  - Business development in finding and engaging clients for GRVis Software Inc.
- **Fall 2007 – 2015**: Research Assistant, Dr. Sheelagh Carpendale.
- **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.