

# Stan Nowak

PhD Candidate  
School of Interactive Arts and Technology  
Simon Fraser University

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## Education

PhD 2017 – (expected) 2022  
Simon Fraser University *Surrey, BC*  
Senior Supervisor: Dr. Lyn Bartram  
Supervisory committee: Dr. Pascal Haegeli and Dr. Wolfgang Stuerzlinger

Bachelor of Arts in Cognitive Systems: Cognition and The Brain 2009 – 2014  
University of British Columbia *Vancouver, BC*

## Awards

FCAT Graduate Fellowship Summer 2021  
Amount: \$3500  
Graduate fellowship for the Faculty of Arts and Technology

Presidents PhD Scholarship Spring 2021  
Amount: \$7500  
Competitive scholarship for students demonstrating scholarly output and leadership relative to peers

Andrew Wade Memorial Scholarship in Visual Analytics Fall 2020  
Amount: \$7500  
Competitive scholarship for graduate students specializing in visual analytics

Van Pykstra Graduate Scholarship Spring 2020  
Amount: \$3700  
Competitive scholarship to support intelligent systems science research

Graduate Fellowship Spring 2020  
Amount: \$6500

SFU Big Data Graduate Scholarships Fall 2019  
Amount: \$6500  
Competitive scholarship to support big data research leaders

Graduate Fellowship

Spring 2019

Amount: \$3250

FCAT Graduate Fellowship

Spring 2019

Amount: \$3250

Graduate fellowship for the Faculty of Arts and Technology

Travel & Minor Research Award

Fall 2018

Amount: \$1000

Support for Travel and Research at *IEEE VIS 2018*

Andrew Wade Memorial Scholarship in Visual Analytics

Fall 2018

Amount: \$6800

Competitive scholarship for graduate students specializing in visual analytics

## Publications

Archival Conference Proceedings (refereed)

- C1. Nowak, S., Bartram, L., & Haegeli, P. (2020, October). Designing for Ambiguity: Visual Analytics in Avalanche Forecasting. In *2020 IEEE Visualization Conference*, Salt Lake City, USA
- C2. Nowak, S., Bartram, L., & Schiphorst, T. (2018, October). A Micro-Phenomenological Lens for Evaluating Narrative Visualization. In *2018 IEEE Evaluation and Beyond-Methodological Approaches for Visualization (BELIV)* (pp. 11-18). IEEE.
- C3. Horton, S., Nowak, S., & Haegeli, P. (2018) Exploring regional snowpack patterns with gridded models. *International Snow Science Workshop Proceedings 2018*, Innsbruck, Austria

Journal

- J1. Horton, S., Nowak, S., & Haegeli, P. (2019). Enhancing the operational value of snowpack models with visualization design principles. *Natural Hazards and Earth System Sciences*.
- J2. Fuhrman, R. A., Nowak, S., & Vatikiotis-Bateson, E. (2016). Evaluating how fine-grained changes in the spatial and temporal properties of audiovisual speech influence the perception of linguistic meter. *The Journal of the Acoustical Society of America*, 139(4), 2046-2046.

## Projects & Systems

AvIDdx Visualization System – *Software System*

May 2020

Operational avalanche forecasting visualization system developed in collaboration with and for Avalanche Canada. In operational use by Avalanche Canada.

## Talks

Interactive Visualizations for Avalanche Hazard Assessment

May 2021

Canadian Avalanche Association Spring Meeting, *Virtual Conference*

Designing for Ambiguity: Visual Analytics in Avalanche Forecasting  
2020 IEEE Visualization Conference, *Salt Lake City* October 2020

Visual Analytics in Avalanche Forecasting  
Western Innovation Forum, *Burnaby* March 2020

Visualization Design, Analysis, and Visual Thinking  
SFU SciProg Research Commons Workshop, *Burnaby* March 2020

Designing Visualization Tools for Avalanche Forecasters  
Canadian Avalanche Association Spring Meeting, *Penticton* May 2019

Principles of Data Visualization and Interpretation  
SFU SciProg Research Commons Workshop, *Burnaby* March 2019

Data Visualization: A Brief Introduction  
UBC Cognitive Systems Guest Lecture, *Vancouver* March 2019

A Micro-Phenomenological Lens for Evaluating Narrative Visualizations  
BELIV Workshop IEEE Infovis, *Berlin* October 2018

## Professional and Research Experience

Vancouver Institute for Visual Analytics – Research Assistant  
2017 - Present  
Supervisor: Dr. Lyn Bartram  
Part of SFU's Big Data Initiative. Visual analytics & information visualization consulting support for internal and external clients including but not limited to Avalanche Canada, BC Cancer Research Centre, SFU internal departments, and graduate students.

SFU Avalanche Research Program - Research Assistant  
2019 - 2020  
Mentoring: Dr. Pascal Haegeli & Dr. Lyn Bartram  
Conducting human-centered research to understand the work of public avalanche forecasters in order to inform the design of visual analytics tools. Developing visualization tools to aid exploratory analysis of physical snowpack models.

Visual Analytics Consulting – Self-Employed  
2016 - 2017  
Analytics and visualization support for clients in business intelligence, data journalism, and retail supply-chain management and distribution.

Vancouver Institute for Visual Analytics – Mentor  
2015 - 2017  
Visual analytics training for academics and professionals. Analytics consulting for industry clients.

BuckMeUp.com – Cofounder  
2014 - 2017  
Design, front-end development and business development of freelance marketplace website.

Communication Dynamics Laboratory – Research Assistant 2014 - 2016  
Supervisor: Dr. Eric Vatikiotis-Bateson  
Developing software for experiments investigating audio-visual illusions.

Visual Cognition Laboratory – Research Assistant 2014  
Supervisor: Dr. Ron Rensink  
Developing software for experiments investigating the effects of stress on visual cognition.

Visual Cognition Laboratory – Volunteer 2013  
Supervision: Dr. Graham Healy & Dr. Ron Rensink  
Designed and conducted experimental research investigating the effects of neurofeedback-training on video game performance.

Communication Dynamics Laboratory – Directed Studies Student 2012  
Supervisor: Dr. Eric Vatikiotis-Bateson & Dr. Osman Ipsiroglu  
Research investigating the use of non-invasive crude motion-detection from 2D video used in monitoring and treatment of children with sleep-disorders.

## Teaching

Visual Analytics Two-Day Course – Teaching Assistant 2019  
Instructor: Dr. Lyn Bartram  
2-day overview of visual analytics for corporate clients. Aided development and delivery.

IAT355 Introduction to Visual Analytics – Teaching Assistant 2019  
Instructor: Dr. Lyn Bartram  
Simon Fraser University – School of Interactive Arts and Technology  
Designed, delivered, and graded tutorials and assignments.

Visual Analytics Half-Day Course – Teaching Assistant 2018 - 2019  
Instructor: Dr. Lyn Bartram  
½ day overview of visual analytics for BC Government and climate researchers. Aided development and delivery.

Visual Analytics Half-Day course – Instructor 2017  
Basic ½ day introduction to visual analytics for engineering students. Developed and delivered.

Management Information Systems – Teaching Assistant Fall 2016  
Instructor: Alyn Amlani  
University of British Columbia – Sauder School of Business  
Developed and graded class exercises.

Andrew Wade Student Workshops – Instructor 2015 - 2017  
Vancouver Institute for Visual Analytics – UBC & SFU  
Developed and delivered 12-week introductory visual analytics course.

APPP505 Analytics and interp. for Applied Sciences – Teaching Assistant

2016 - 2017

Instructor: Dr. Iain Begg

Developed and delivered lab portion for the course.

SFU Continuing Studies VA Certificate

2016

Aided the development of two courses (VISU110 and VISU410) that have yet to be taught.