

CANVAS 2012

Program

The Canadian Visual Analytics School

2012 - Summer Edition

July 23 – 26, 2012

Simon Fraser University
Burnaby, BC



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Table of Contents

Introduction	5
Agenda	6
Session Presenters	10
Session Participants and Trainers	16
Academic Attendees	18
Corporate Attendees	22
IRMACS Team	23
Participating Organizations	24
Sponsors	25

Introduction

The Canadian VA School (CANVAS) provides students with an opportunity to further their knowledge of VA and gain hands-on experience with VA tools.

CANVAS brings together students, researchers and scientists active in fundamental and applied Visual Analytics research, VA tool developers and vendors, as well as industry Subject Matter Experts who have applied VA in their domains.

The goal of CANVAS is to build a network of students, faculty and professionals actively participating on VA projects applied to solving real-world problems.

Agenda Day 1:

Monday, 23 July 2012




Time	Session/Presenter	Participants
0830	Welcome notes	<i>Fred Popowich, SFU/VIVA</i>
0900-1000	Keynote I <i>David Ebert, Purdue/VACCINE</i>	<i>David Kasik, Boeing – Introduction</i> Topic: TBD.
1000-1030	Break	
1030-1200	Demos & Discussion I <i>Ross Maciejewski, Arizona State</i>	<i>David Ebert, Purdue/VACCINE</i> Topic: VA Research and Applications.
1200-1330	Lunch	
1330-1415	Issues I <i>Brian Fisher, SFU (Video Conference)</i>	<i>David Darvill, SFU/VIVA – Introduction</i> Topic: Interaction Science.
1415-1500	Issues Discussion II	<i>Student break-out groups</i> Topic: Interaction Science.
1500-1530	Break	
1530-1615	Issues III <i>Marcus Lem, Fraser Health, BC</i>	<i>David Darvill, SFU/VIVA – Introduction</i> Topic: VA and Healthcare.
1615-1700	Issues Discussion III	<i>Student break-out groups</i> Topic: VA and Healthcare.
1700-1800	Day 1 Wrap-up <i>David Kasik, Boeing</i>	
1800-2000	Reception	Dinner & Drinks, Pizza & Beer, Wine & Cheese, etc.
2000-2200	VA Lab Access	<i>Access to tools in VA Challenge Program Lab</i>

Agenda Day 2: Tuesday, 24 July 2012

Time	Presenter	Participants
0845	Welcome notes	<i>David Darvill, SFU/VIVA</i>
0900-1000	Keynote II <i>Jean-Daniel Fekete, INRIA, France</i>	<i>Ronald Rensink, UBC – Introduction</i> Topic: Current Issues in VA
1000-1030	Break	
1030-1115	Issues II <i>Ronald Rensink, UBC</i>	<i>David Darvill, SFU/VIVA – Introduction</i> Topic: Visual Cognition.
1115-1200	Issues Discussion I	<i>Student break-out groups</i> Topic: Visual Cognition.
1200-1330	Lunch	
1330-1415	Issues IV <i>Rob Woodbury & Jeffrey Guenther, SFU</i>	<i>Fred Popowich, SFU/VIVA – Introduction</i> Topic: Development of CZSaw.
1415-1500	Demos & Discussion II <i>Jeffrey Guenther, SFU</i>	<i>Student break-out groups</i> Topic: Demonstration of CZSaw.
1500-1530	Break	
1530-1730	Tool Workshop I	<i>Jean-Sébastien Côté, VIVA</i> Topic: Unstructured Data Analysis – Demos and Play <ul style="list-style-type: none"> • Tableau
1730-1900	Dinner Break	
1900-2100	Tool Workshop II	<i>Jean-Sébastien Côté, VIVA</i> Topic: Structured Data Analysis – Demos and Play <ul style="list-style-type: none"> • Starlight
2100	Day 2 Wrap-up <i>David Kasik, Boeing</i>	
<i>2130+</i>	<i>Adjourn to Pub</i>	

Time	Presenter	Participants
0845	Welcome notes	<i>David Darvill, SFU/VIVA</i>
0900-1000	Keynote III <i>Roger Nicholson, Boeing</i>	<i>David Kasik, Boeing – Introduction</i> Topic: Visual Analytics and Aircraft Safety Engineering
1000-1030	Break	
1030-1100	Methods I <i>Richard Arias-Hernandez, SFU</i>	<i>David Darvill, SFU/VIVA – Introduction</i> Topic: VA Analysis Methods (including Paired Analysis, etc.)
1100-1200	Methods II	<i>Student break-out groups</i> Topic: Paired Analysis for Aircraft Safety and Bird Strikes (Hands-on)
1200-1300	Lunch	
1300-1345	Issues V <i>Anoop Sarkar, SFU</i>	<i>Fred Popowich, SFU/VIVA – Introduction</i> Topic: Text Analysis and Natural Language Processing.
1345-1430	Issues Discussion V	<i>Student break-out groups</i> Topic: Text Analysis and Natural Language Processing.
1430-1500	Break	
1500-1545	Issues VI <i>Cydney Nielsen, BC Cancer Agency Genome Sciences Centre</i>	<i>David Darvill, SFU/VIVA – Introduction</i> Topic: Genome BioVis and VA
1545-1630	Issues Discussion VI	<i>Student break-out groups</i> Topic: Genome BioVis and VA
1630-1700	End Note <i>David Kasik, Boeing</i>	<i>Fred Popowich, SFU/VIVA – Introduction</i> Topic: The next decade of VA
1800-2000	Dinner & Wrap-up	<i>Fred Popowich, SFU/VIVA - Host</i>

Agenda Day 4: Thursday, 26 July 2012

Time		
0845	Welcome to VA Tools Day	<i>IRMACS Theatre - Jean-Sébastien Côté, VIVA</i>
0900-1030	VA Tools – Session A 	Hands-on workshop - VA Lab with Tableau Trainer: Paul Sochan <ul style="list-style-type: none"> • Featured Application: Tableau
1030-1100	Break	
1100-1230	VA Tools – Session B 	Hands-on workshop – VA Lab with VIVA Trainer: Kyle Melnick <ul style="list-style-type: none"> • Featured Application: Geotime (Oculus Info)
1230-1330	Lunch	
1330-1500	VA Tools – Session C	Presentation – Theatre with IBM i2 Trainer: Paul Rivet <ul style="list-style-type: none"> • Featured Application: i2 Analyst Notebook (IBM)
1500-1530	Break	
1530-1700	VA Tools – Session D 	Hands-on workshop – VA Lab with VIVA Trainer: Benjamin Shieh <ul style="list-style-type: none"> • Featured Application: Starlight (Future Point Systems Inc.)
1700	End Note	

Session Presenters



Dr. Richard Arias-Hernandez

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Dr. Arias-Hernandez is a Postdoctoral Fellow at the SCIENCE lab, School of Interactive Arts and Technology (SIAT), SFU. His current research focuses on applied psycholinguistics (Herbert Clark’s Joint Action Theory) to solve coordination problems in collaborative Visual Analytics.



Dr. David Ebert

(Purdue University – IN, U.S.A)

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Dr. Ebert is a university faculty scholar at Purdue University, where he directs the Visualization and Analytics Center (PURVAC) and the Rendering and Perceptualization Laboratory (PURPL). He also directs VACCINE (Visual Analytics for Command, Control and interoperability Environments).



Dr. Jean-Daniel Fekete

(INRIA – Orsay, France)

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Dr. Fekete is a researcher in Computer Science. He is the Scientific Leader of the INRIA Project Team AVIZ and recipient of a Google Research Award. His areas of

research include Visual Analytics, information visualization, and human computer interaction.



Dr. Brian Fisher
(SFU – BC, Canada)

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Dr. Fisher is an Associate Professor at SIAT, SFU. He is Principal Investigator of an NSERC (Natural Sciences and Engineering Research Council of Canada) grant “Visual Analytics for Emergency Management” which concerns visual analysis and evaluation of risk and vulnerability, including novel threats (e.g. terrorism) and innovative approaches to preventing and countering them.



Jeffrey Guenther
(SFU – BC, Canada)

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Mr. Guenther is a Masters Student at the Humans, Visualizations & Interfaces Lab, SFU. He works on the CZSaw VA system, which helps analysts understand, explore, reference, and reuse their analysis process, and is a Research Associate on Dr. Anoop Sarkar’s “Advanced Annotation and Text Models for Visual Analytics” project.



Dr. David Kasik

(The Boeing Company – WA, U.S.A)

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Dr. Kasik is Senior Technical Fellow of Enterprise Visualization, The Boeing Company, and Adjunct Professor, SIAT, SFU. He is also an Advisor to VIVA.



Dr. Marcus Lem

(Fraser Health – BC, Canada)

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Dr. Marcus Lem recently moved to the Fraser Health Authority in British Columbia. Previously, he was the Director of Health Protection for Health Canada's First Nations and Inuit Health (FNIH), British Columbia Region. Dr. Lem is a Fellow of the Royal College of Physicians of Canada and an Adjunct Professor in the Department of Epidemiology and Community Medicine at the University of Ottawa and the School of Population and Public Health at UBC.



Dr. Ross Maciejewski

(Arizona State University – AZ, U.S.A)

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Dr. Maciejewski is an Assistant Professor in the School of Computing, Informatics and Decision Systems Engineering, ASU. His current research interests include applying Visual Analytics to aid in the analysis of real time decision making. This includes aiding epidemiologists, first responders and

improving economic decision making.



Dr. Roger Nicholson

(The Boeing Company – WA, U.S.A)

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Dr. Nicholson is an Associate Technical Fellow of Aviation Safety at The Boeing Company. He sits on the steering committee for the International Bird Strike Committee and has pioneered the use of Visual Analytics to reduce bird strikes through engineering and procedural changes.



Dr. Cydney Nielsen

(BC Cancer Agency Genome Sciences Centre – BC, Canada)

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Dr. Nielsen is a CIHR Postdoctoral Research Fellow. She currently develops novel high-throughput data analysis techniques that exploit synergies between human visual reasoning and machine computation, and applies these techniques to answer pressing questions in genomics.



Dr. Ronald Rensink

(UBC – BC, Canada)

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Dr. Rensink is an Associate Professor in the Departments of Computer Science and Psychology, UBC, and Associate Director of VIVA. He is Principal Investigator on the NSERC Collaborative Research and Development (CRD) “Visual Analytics in Context: Theory into Practice.” He is interested in information visualization issues including establishing the basis of effective design in visual displays, designing visual interfaces to be “transparent” to users, representing data so that human visual intelligence can pick out interesting patterns, and designing VA systems to allow users to easily analyze immense amounts of data.



Dr. Anoop Sarkar

(SFU – BC, Canada)

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Dr. Sarkar is an Associate Professor of Computing Science, SFU. He is Principal Investigator on the NSERC CRD “Advanced Annotation and Text Models for Visual Analytics” project. The project uses state-of-the-art natural language processing (NLP) algorithms to visualize text as entities and relationships between them.



Dr. Rob Woodbury

(SFU – BC, Canada)

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Dr. Woodbury is a Professor at SIAT, SFU. He works on mixed initiative visualization techniques that combine computational capabilities such as data mining with human visual search. Many digital collections share a common structure in which a collection, the objects collected and the meaning of the collection can be separately considered. A data structure comprising exhibitions, annotations, and resources (EAR) is a general device for organizing such collections. Dr. Woodbury has developed NEAR, a graph visualization tool aimed at helping people understand and use EAR structures.

Session Participants and Trainers

Jean-Sébastien Côté

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Mr. Côté is Managing Director of VIVA.

Dr. David Darvill

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Dr. Darvill is Research Director of VIVA and Adjunct Professor at the School of Interactive Arts and Technology, SFU.

Kyle Melnick

(VIVA – BC, Canada)

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Mr. Melnick is VA Lab Manager for VIVA and a Research Assistant in the Visual Cognition Lab, Department of Psychology, UBC.

Dr. Fred Popowich

(SFU – BC, Canada)

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Dr. Popowich is Professor of Computing Science and Associate Member of Cognitive Science, SFU. He is Director of VIVA.

Paul Rivet

(IBM i2 – BC, Canada)

Mr. Rivet is Vice-President of North American Public Safety Sales, i2 Brand at IBM.

Benjamin Shieh

(UBC – BC, Canada)

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Mr Shieh is a BSc student in Cognitive Systems at UBC.

Paul Sochan

(Tableau Software – WA, U.S.A)

Mr. Paul Sochan is Director of Training at Tableau Software. He has been in the field of Business Intelligence (BI) for over 15 years and is now using his extensive education and BI experience to develop innovative customer training programs at Tableau Software.

Academic Attendees

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Kelly Gardiner, Front Desk/Financial Assistant

Andrew Gavel, Audio Visual/Collaboration Assistant

Riley Shott, Desktop Support

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(Vancouver, BC, Canada)**

**University of British Columbia
(Vancouver, BC, Canada)**

**Dalhousie University
(Halifax, NS, Canada)**

**OCAD University
(Toronto, ON, Canada)**

**University of Victoria
(Victoria, BC, Canada)**

**Middlesex University
(Middlesex, UK)**

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