

Permanent:

2136 West Brook Mall
Vancouver, BC, V6T1Z4
CA:(778)323-1089 (primary)
US:(443)756-8627
Maelliott1010@gmail.com
Mellio10@psych.ubc.ca

Madison Ann Elliott

PRIMARY INTERESTS

| Information Visualization | Human Perception (Vision Science) | Ensemble Coding |
| Attentional Selection | Software Design | Web Design | UX | Statistical Analyses |

EDUCATION

Ph.D. University of British Columbia, Vancouver, B.C.

Expected Graduation: 2020

Major: Cognitive Psychology

M.A., University of British Columbia, Vancouver, B.C.

Thesis: Interference in the Perception of Correlation for Two-Population Scatterplots.

Graduation: 2016

Major: Cognitive Psychology

M. A., Towson University, Towson, MD

Thesis: Efficacy of Memory Rehabilitation Therapy: A Meta-Analysis of TBI and Stroke Cognitive Rehabilitation Literature.

Graduation: 2013

Major: Clinical Psychology

B.A., Roanoke College, Salem, VA

Graduation: 2011

Major: Psychology

Minors: Spanish, Studio Art

A.A., Community College of Baltimore County, Catonsville

Major: Computer Science

WEBSITES: <http://VisXVision.com> | <http://maelliott1010.github.io/about>

PROGRAMMING LANGUAGES & TECHNOLOGY

- Python, R, HTML, CSS, Java, Javascript, SPSS, Tableau, Axure, Git, Objective C, PHP, Excel, MATLAB, MIX 2.0 for meta-analysis, Wordpress, Squarespace Developer

RELEVANT PUBLICATIONS

First Author Publications

- Crisan, A. *, & Elliott, M. A. * (in press). How to Evaluate an Evaluation Study? Comparing and Contrasting Practices in Vis with Those of Other Disciplines. *Proceedings of the 7th BELIV'18 Workshop: Beyond Time and Errors: Novel Evaluation Methods for Information Visualization*.
- Vandenberg, R. *, Elliott, M. A. *, Harvey, N., Munzner, T. (2018). LSQT: Low-Stretch Quasi-Trees for Bundling and Layout. *Manuscript under review for publication*. * indicates shared first-authorship
- Elliott, M. A. (2016). *Interference in the perception of correlation in two population scatterplots* (Masters thesis, University of British Columbia).
- Elliott, M. A. & Parente, F. (2014). Efficacy of Memory Rehabilitation Therapy: A Meta- Analysis of TBI and Stroke Cognitive Rehabilitation Literature. *Brain Injury*, 28(12): 1610-1616.

Other Publications

- Park, J. L., Silveira, M., Elliott, M. A., Savalei, V. & Johnston, C. (2018). Confirmatory Factor Analysis of the Structure of Adult ADHD Symptoms. *Psychopathology and Behavioral Assessment*, 40(4): 573-585.

CONFERENCE PRESENTATIONS AND SYMPOSIA

- Elliott, M., Nothelfer, C., Bylinskii, Z., Xiong, C., Szafir, D. (invited October 2018) Vis meets vision, *presented at the 2018 IEEE Vis Meeting*, Berlin, Germany.
- Nothelfer, C., Elliott, M., Bylinskii, Z., Xiong, C., Szafir, D. (2018) Vision and Visualization: Inspiring Novel Research Directions in Vision Science. *Panel at Vision Sciences Society Annual Meeting*, St. Pete, FL, United States.
- Elliott, M. Experimental methodologies for vision scientists and visualization experts: innovation through collaboration. *Presented at the 2017 National Academy of Sciences Sackler Student Fellows Symposium*, Washington DC, United States.
- Nothelfer, C., Bylinskii, Z., Elliott, M., Xiong, C., Szafir, D. Visualization Meets Vision Science. *Research Panel presented at the 2017 IEEE Vis Meeting*, Phoenix, AZ, USA.
- Elliott, M., Nothelfer, C., Bylinskii, Z., Xiong, C., Szafir, D. Meetup: Vis meets vision, *presented at the 2017 IEEE Vis Meeting*, Phoenix, AZ, USA.

- Park, J. L., Elliott, M., Silveira, M., & Johnston, C. (2017). Factor structure of ADHD: Lifespan perspective. *Poster presented at the Eighteenth Biennial ISRCAP Scientific Meeting*, Amsterdam, Netherlands.
- Madison Elliott & Ronald Rensink (2017). Limits to the Attentional Selection of Features. *Vision Sciences Society Annual Meeting*, St. Pete, FL, United States.
- Daniel Oppenheimer, Jiaying Zhao, Peter Juslin, Adam Elga, Keela Thompson, Ronald Rensink & Madison Elliott (2016). Symposium on Thinking about Non-Linear Systems. *International Conference on Thinking*, Brown University, Providence, RI, United States.
- Madison Elliott & Ronald Rensink (2016). Extraction Dissonance: Not all Ensembles are Created Equal. *Vision Sciences Society Annual Meeting*, St. Pete, FL, United States.
- Madison Elliott & Ronald Rensink (2015). Interference in the Perception of Two-Population Scatterplots. *Vision Sciences Society Annual Meeting*, St. Pete, FL, United States.
- Madison Elliott. (2014) Attracting and Retaining Future Talent in Information Systems. *Northrop Grumman Summer Intern Challenge*, United States.
- Madison Elliott & Frederick Parente (2013) Efficacy of memory rehabilitation therapy: a meta analysis of TBI and stroke cognitive rehabilitation literature. *International Conference for Recent Advances in Neurorehabilitation (ICRAN)*, Valencia, Spain.
- Michael Dewald & Madison Elliott (2012). Is a picture worth 1000 coping mechanisms?: Improving personal medicine skills in MMI populations. *Towson University Advanced Bio-psychological Seminar*, Towson, United States.
- Madison Elliott & Frederick Parente (2012). Efficacy of working-memory rehabilitation therapy. *Towson University Graduate Student Research Expo*, Towson, United States.

TEACHING

- 2016-2018 – Instructor for Cognitive Systems 303 – *Research Methods for Cognitive Systems*
- 2018 - Instructor for Psychology 102 – *Introduction to Psychology*
- 2015-2018 – Teaching Fellow for Psychology 217 – *Research Methods in Psychology*

AWARDS AND HONORS

- Canadian Psychology Association Best Thesis Award (UBC), 2016
- UBC 4-Year Doctoral Research Fellowship, 2017
- Mitacs Accelerate Award for Graduate Researchers, 2015, 2016
- Northrup Grumman Intern Summer Challenge Winner, 2014
- 3rd Place in 2014 Maryland State Java Programming Competition for Community Colleges, 2013
- Psi Chi, National Psychology Honor Society
- Xi Theta Chi, National Foreign Language Honor Society
- Fintel Senior Scholarship Award - Roanoke College
- Fortnightly Club Study Abroad Scholarship Award – Roanoke College
- Mamie S. Patterson Travel Award – Roanoke College

RESEARCH

Ph.D. Research in Cognitive Science

- *Feature Selection in Attention for Multi-dimensional Ensembles.*
- *Visual Search across Precise Color and Shape Dimensions.*

Ph.D. Research in Information Visualization

- *LSQT: Low-Strech Quasi-Trees for Layout and Edge Bundling.*

Graduate Intern, Johns Hopkins Visual Thinking Lab, Baltimore, MD, 2012-2014

- *Risk Perception and the Base-rate Problem in Cancer Infographics.*

Master's Thesis, Towson University, Towson, MD, 2011-2013

- *The Efficacy of Cognitive Rehabilitation for TBI and Stroke.*

Graduate Researcher, Adams Hanover Counseling Services, Hanover, PA, 2012

- *Novel Clinical Strategies for Major Mental Illness Populations: an Art Therapy Approach.*

Clinical Research Technician, Montgomery County Jail, MD, 2012

- *Understanding the Relationship Between Intrusive Thoughts and Violent Actions.*

Research Practicum, Roanoke College, Salem, VA, 2010-2011

- *Vision Science/Neuroscience Practicum. MATLAB Learning Intensive.*

RELATED EXPERIENCE

Professional Experience

- *Mana Financial Life Design, 2018-present*
 - Website design and development
 - Personal finance visualizations
 - Usability and UX in displays about personal finance and attitudes towards financial decision making
 - Content development and branding
- *UBC Digital Literacy & Multimodal Learning Initiative, 2018-present*
 - A university-wide initiative to increase digital literacy amongst students and investigate learning outcomes associated with multimodal instructional tools
 - Visualizing qualitative and quantitative research findings from diverse project groups, creating usable reports for university officials and faculty
 - Survey design and analysis
 - User experience testing and analysis
 - Researching the efficacy of new technologies in the classroom
 - Maintaining a Wordpress site for the group
- *Alpine Club of Canada Online Calendar Tool, 2018*
 - Developing a new online scheduling tool and web interface for members, to replace the antiquated iCal website currently in use
 - Wordpress site development
 - Custom .php application development and data integration
 - User testing and iterative design/development cycles
- *Distrix Networks Ltd., 2016-2017*
 - Mitacs Accelerate Award research project focusing on the design and implementation of a new user interface for Distrix IOT software
 - UI/UX research and design with Axure
- *INETCO Systems, Ltd., 2015-2016*
 - Mitacs Accelerate Award research project focusing on the design and implementation of a new user interface for INETCO Insight® software
 - Researching and helping elicit product goals
 - Usability evaluations
 - Designing UI prototypes in Axure
 - Iterative work with developers to code and validate prototypes in Javascript
 - Chauffeured software demos with customers and creating useful feedback cycles
- *Manager of the Visual Cognition Lab Coding Team, 2015-Present*
 - Contributing to code base for our Java library, designed for vision scientists to use for developing and running experiments

- Designing and testing pieces of software that will allow scientists to perform data visualization and cognitive psychology research
- Organizing sprints and milestones for development and creating releases
- Training new members, managing current members
- Tools:
 - GitHub/Git
 - Slack
 - Maven
 - Travis CI
 - IntelliJ IDE
- *Northrop Grumman User Experience Group in Woodlawn, MD, 2014*
 - Supporting contracts for Social Security Administration (SSA)
 - Developing a public-facing web application used for applying for replacement Social Security cards
 - Developing an internal-facing intranet webpage for the SSA Office of Budget, Finance, Quality and Management
 - Building an internal repository of all web UEF patterns currently used by Northrop Grumman for Social Security webpages
 - Planning with and meeting with customers and internal sponsors to elicit project needs and evaluate progress
 - User testing and evaluation
 - Data analysis of test results
 - Using Axure to build prototype webpages

Software Projects (Misc.)

- *CCBC Radiography Department custom mobile iOS application, 2013*
 - Developing a mobile application in Objective C (for Apple iPad) for Radiography students to track x-ray clinical rotation progress
 - Publishing application through iTunes store
 - Defining business processes with Radiography department professionals
 - Creating and defining screen prototypes
 - Identifying user personas and scenarios
 - Conducting usability testing with CCBC Radiography department
 - Browser-based interface, responsive design
 - Documenting user requirements, screen designs, and design recommendations
 - Defining functional requirements
- *Pawsitive Pup mobile iOS application, 2013-2014*
 - Developing a mobile application in Objective C for positive reinforcement-based dog training

- Research and development
- Creating and defining screen prototypes
- Identifying user personas and scenarios
- Browser-based interface, responsive design
- Documenting user requirements, screen designs, and design recommendations
- Implementing custom artwork

LEADERSHIP EXPERIENCE

- VCL Correlation Project Leader
- VCL Analytics Manager
- VCL Coding Team Manager
- Team Captain of Java Programming Team, CCBC Catonsville 2014
- President Xi Theta Chi, Spanish Honor Society 2011
- Senior Administrator for Dogs XL Rescue 2012-present

PROFESSIONAL AFFILIATIONS

- IEEE Student Member
- American Psychological Association (APA) Student Affiliate
- The Society for Cognitive Rehabilitation Student Affiliate

REFERENCES Available upon request