

Katherine J. Mimnaugh

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Contact Information

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EDUCATION

University of Illinois at Urbana-Champaign

Master of Science, Natural Resources and Environmental Sciences

Advisors: Carena van Riper & Matthew Browning

Fall 2012– Present

University of Illinois at Urbana-Champaign

Bachelor of Science, Psychology and Spanish

Study Abroad: Granada, Spain

Aug 2004 – Aug 2008

Fall 2007

WORK AND RESEARCH EXPERIENCE

Graduate Teaching Assistant

CS 498 – Virtual Reality Course, Department of Computer Science, University of Illinois at Urbana-Champaign

- Assisted with the preparation of lecture content and class presentation slides
- Conducted office hours to support students in the course with homework assignments in Unity 3D
- Oversaw coordination of class project sponsorship with other University faculty and staff
- As VR cinematographer for the class, assisted projects filming in 8k with the InstaPro 360 camera
- Created VR empathy film for class project on homelessness; supervised class project on VR meditation app

Jan 2018 – Present

Research Program Coordinator and Graduate Research Assistant

Cognition and Brain Lab, University of Illinois at Urbana-Champaign

- Worked closely with faculty, staff, students, the department and the community to carry out lab duties
- Organized lab space and set up new electrophysiological and galvanic skin response recording systems
- Ran over 100 experiment sessions and trained 15 new lab members on EEG recording preparation techniques
- Collected data for reports, ordered lab equipment and wrote official documents for grants and the IRB
- Coordinated standardization of lab techniques and oversaw maintenance and organization of lab files
- Recruited and trained 10 undergrad lab assistants; coordinated work for assistants with graduate students
- Created and maintained lab website: www.cognitionandbrainlab.org

Dec 2012 – Present

Graduate Research Assistant

Virtual Reality & Nature Lab, University of Illinois at Urbana-Champaign

- Designed and carried out investigation on the stress buffering effects of nature exposure in virtual reality
- Wrote and secured Institutional Review Board approval and grant funding for the project
- Selected, tested and deployed psychophysiological, virtual reality, audio and video equipment
- Recruited and trained 4 undergrad lab assistants; coordinated schedules for subject running
- Developed and piloted experimental procedure; recruited, scheduled and ran 43 research sessions
- Created and maintained lab website: www.vrnaturelab.org

Aug 2016 – Jul 2017

Laboratory Manager and Research Program Coordinator

Cognitive & Affective Neuroscience of Psychopathology Lab, University of Illinois at Urbana-Champaign

- Worked closely with professors, students, the department and the community on behalf of the lab
- Recruited over 2,500 study participants and scheduled multiple sessions for each subject
- Organized calendars for 10-15 lab members each semester to staff experiments and schedule meetings
- Conducted an average of 10 lab tours, EEG and MRI experiments per week; ran 155 selected subjects
- Trained 17 students on experimental procedures and 5 students on EEG data processing
- Organized 102 GB worth of research data in databases with careful maintenance of confidential records
- Assisted in writing and editing academic papers and wrote official documents for grants and the IRB
- Collected data for reports, ordered lab equipment and responded to calls and emails about the research project
- Created and maintained lab website: www.wendyhellerlab.wordpress.com

Jun 2008 – Dec 2012

Undergraduate Research Assistant

Human Performance and Perception Lab, University of Illinois at Urbana-Champaign

- Collected cheek swabs, extracted DNA and performed PCR on genetic samples
- Received training on proper handling of biohazard waste and administration of neuropsychological tests
- Recruited participants, arranged parking, handled payments and ran two hour experiments for 30 subjects

Jan 2007 – May 2007

PUBLICATIONS

- Ryskin, R., Ng, S., **Mimnaugh, K. J.**, Brown-Schmidt, S., & Federmeier, K. (Submitted). Talker-specific predictions during language processing. *Language, Cognition and Neuroscience*.
- Sass, S.M., Heller, W., Fisher, J.E., Siltan, R.L., Stewart, J.L., Crocker, L.D., **Mimnaugh, K. J.**, & Miller, G.A. (2014). Electrophysiological evidence of the time course of attentional bias in non-patients reporting symptoms of depression with and without co-occurring anxiety. *Frontiers in Psychology*, 5, 301.
- Letkiewicz, A. M., Miller, G. A., Crocker, L. D., Warren, S. L., Infantolino, Z. P., **Mimnaugh, K. J.**, & Heller, W. (2014). Executive Function Deficits in Daily Life Prospectively Predict Increases in Depressive Symptoms. *Cognitive Therapy and Research*, 38(6), 612-620.

CONFERENCE PRESENTATIONS

- **Mimnaugh, K. J.**, van Riper, C. & Browning, M. (2018, June). *Mindfulness as a mechanism for restoration from nature: A study of the effects of natural environments and virtual reality on psychological responses to stress*. Poster to be presented at the International Symposium on Society and Resource Management, Salt Lake City, UT.
- Browning, M., & **Mimnaugh, K. J.** (2017, June). *Can virtual reality be used to mimic the health benefits of nature and systematically test environmental psychology theory?* Poster presented at Environmental Design Research Association conference, Madison, WI.
- **Mimnaugh, K. J.** & Browning, M. (2017, April). *Do we need 'actual' park visitation for Park Rx? Studying nature-based virtual reality for stress-reduction*. Poster presentation at George Wright Society conference, Virginia Beach, VA.
- Taff, D., Van Riper, C., Browning, M., **Mimnaugh, K. J.**, Thomsen, J., Newman, P., Hipp, A., Brownlee, M., Koontz, L., and Richardson, L. (2017, April). *Health parks healthy people: State of the evidence and paths to improve the science*. Panel presentation at George Wright Society conference, Virginia Beach, VA.
- Ryskin, R., Ng, S., **Mimnaugh, K. J.**, Brown-Schmidt, S., & Federmeier, K. D. (2017, March). *Speaker-specific predictions about membership during language comprehension*. Poster presented at the annual meeting of the Cognitive Neuroscience Society, San Francisco, CA.
- Browning, M., & **Mimnaugh, K. J.** (2017, March). *Preliminary results from simulating nature, enhancing health project: An exploration of the therapeutic applications of natural environments in virtual reality*. Poster presented at Chittenden Symposium on Assistive Technologies in Health, Champaign, IL
- Browning, M. & **Mimnaugh, K. J.** (2016, October). *Technology of healing: Exploring simulated natural environments for therapeutic applications*. Poster presented at the North American Association for Environmental Education Conference, Madison, WI.
- **Mimnaugh, K. J.** & Browning, M. (2016, June). *The technology of healing: Exploring simulated natural environments in virtual reality for therapeutic applications*. Poster presented at the International Symposium on Society and Resource Management, Houghton, MI.
- Browning, M & **Mimnaugh, K. J.** (2016, April). *Simulating nature, enhancing health: Exploring therapeutic applications of natural environments in virtual reality, and opportunities for the Design Center*. Poster presented at the Chittenden Symposium, Champaign, IL.
- Browning, M., Browning, L., Chalip, L., van Riper, C., Stewart, W., & **Mimnaugh, K. J.** (2016, April). *Simulating nature, enhancing health: Virtual reality proposal for the Design Center*. Poster presented at the University of Illinois Design Center Lightning Symposium, Champaign, IL.
- Letkiewicz, A. M., Siltan, R. L., **Mimnaugh, K. J.**, Heller, W., Miller, G. A., & Sass, S. M. (2015, September). *Child abuse and altered processing of negative stimuli in adulthood*. Poster presented at the annual meeting of the Society for Psychophysiological Research, Seattle, WA.
- Finy, M. S., Hojnicky, M. P., Crocker, L. D., Warren, S. L., O'Hare, A. J., **Mimnaugh, K. J.**, Smolen, A., Miller, G. A., & Heller, W. (2014, March). *Anxious arousal as a joint function of inhibitory dysfunction and the dopamine D4 receptor gene (DRD4) polymorphism*. Poster presented at the International Workshop on Statistical Genetic Methods for Human Complex Traits, Boulder, CO.
- Finy, M. S., Hojnicky, M. P., Crocker, L. D., Warren, S. L., O'Hare, A. J., **Mimnaugh, K. J.**, Miller, G. A., & Heller, W. (2013, September). *Anxious arousal as a joint function of inhibitory dysfunction and the dopamine D4 receptor gene (DRD4) polymorphism*. Poster presented at the annual meeting of the Society for Research in Psychopathology, Oakland, CA.
- Letkiewicz, A. M., Heller, W., Crocker, L. D., **Mimnaugh, K. J.**, Warren, S. L., Spielberg, J. M., & Miller, G. A. (2013, September). *Rumination mediates a relationship between executive dysfunction and increases in depressive symptoms over time*. Poster presented at the annual meeting of the Society for Research in Psychopathology, Oakland, CA.

INVITED PRESENTATIONS

- **Mimnaugh, K. J.** (2017) “*VR for Good: Virtual Reality for Beneficial Societal Applications.*” Invited guest lecture for Computer Science 498 – Virtual Reality, University of Illinois at Urbana-Champaign, December 4.

GRANTS AND CONTRACTS

- 2016-2017. Browning, M., & LaValle, S. M. *The technology of healing: Exploring simulated natural environments in virtual reality for therapeutic applications.* The Center on Health, Aging, and Disability Pilot Grant. \$20,000 – Assisted in writing and securing grant funding for my thesis research project

SERVICE

Founder, UIUC VR for Good Club Jan 2018 – Present

- Created organization focused on developing virtual reality for educational, scientific and socially beneficial uses
- Organized biweekly meetings to discuss relevant topics, opportunities for projects and potential collaborations

International Committee, Sierra Student Coalition Jan 2014 – Jan 2016

- Co-chair of International Committee (2014) - created and lead campaign to international climate negotiations
- Developed application, interviewed applicants and chose a core team to lead groups in the committee to COP
- Collaborated with the Sierra Club in meetings and calls to strategize for COP20 and COP21
- Set up committee weekly calls and facilitated the creation of work plans and goals for the year
- Oversaw the work of groups in planning for the negotiations and implementing strategy on the ground

Campaigns and Trainings, Sierra Student Coalition Aug 2012 – Jan 2014

- Volunteer Co-lead of Campaigns Committee - provided support for dozens of SSC campaigns nationwide
- Assisted in planning SPROG 2013 with weekly calls and tasks including recruitment and fundraising
- Raised \$1,900 for youth to attend SPROG 2013 by reaching out to community allies
- Gave trainings on leadership, recruitment, facilitation and community work for 30 youth at SPROG 2013

Prairie Rivers Network, Sierra Club & Heartland Coalfield Alliance Oct 2011 – Dec 2014

- As Student Liaison for the Sierra Club group, spearheaded collaboration between local activists and students
- Conducted research on state legislation and helped plan events for Illinois environmental groups
- Spoke officially on behalf of Prairie Rivers Network at a hearing of the Illinois Pollution Control Board

UIUC Beyond Coal Campaign, Students for Environmental Concerns Sept 2011 – Jan 2014

- Alumni Engagement Chair (Fall 2013) - collaborated with alumni and organizations to build campaign support
- Outreach Chair (Fall 2012, Spring 2013) - engaged community organizations statewide in collaborative efforts
- Coalition-Building Chair (Spring 2012) - reached out to faculty and student groups to form alliances
- Phonebank and Databasing Leader (Fall 2011) - trained and led 10 students in recruitment and databasing
- Helped secure 1,000 student commitments to vote in the 2012 election for PowerVote’s GOTV campaign

SKILLS

Languages

- English (Native); Spanish (Advanced)

Computer Skills

- Fluent in Microsoft Word, Excel, and PowerPoint; experience programming in HTML, Java and C++
- Extensive experience with database and statistics programs including MS Access, Matlab, SPSS and SAS
- Experience developing VR environments with Unity 3D & films with 360 degree cameras and Adobe Premier
- Website creation, design and maintenance proficiency

HONORS AND AWARDS

Sierra Student Coalition (Youth Chapter of the Sierra Club)

- *The Campaign Award* Aug 2014

In recognition of a Sierra Student Coalition volunteer who has significantly contributed to the implementation and development of SSC national campaign strategy; presented for the creation and operation of a youth international campaign to the United Nations Conference of the Parties

- *The Bridge-Building Award* Aug 2012

In recognition of a volunteer who partnered well with community members to run an innovative community-based campaign; presented for collaborative work with the Champaign-Urbana community around campus fossil fuel divestment and other local environmental initiatives

Gamma Sigma Delta Honor Society

Mar 2017