SHIKANG PENG speng@research.baycrest.org | Toronto, ON, CA

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### **EDUCATION**

## University of Toronto | Rotman Research Institute

2024-Present

Ph.D., Psychology-Computational Cognitive Neuroscience

Advisor: Dr. Brian Levine

University of Chicago 2023-2024

M.A., Social Sciences-Psychology

GPA: 3.9/4.0

Advisors: Drs. Wilma Bainbridge & Monica Rosenberg

Thesis: Predictability of memorability neural pattern and attention network in subsequent memory retrieval

2019-2023 University of Alberta

B.Sc., Psychology with Honors

GPA: 3.8/4.0

First Class Honors Advisor: Dr. Peter Dixon

Thesis: Text-based and memory-based metrices of cognitive coupling

## **PUBLICATIONS**

Feminella, J., Peng, S., & St Jacques, P. (Under Review). Dimensionality affects memory for events in immersive virtual reality.

Peng, S., & Bainbridge, W. A. (2025). Image memorability predicts social media virality and externally-associated commenting. Comput. Hum. Behav. https://doi.org/10.1016/j.chb.2025.108799

Peng, S., & Dixon, P. (2024). Text-based and memory-based metrics of cognitive coupling. C. J. Exp. Psychol., 78(4), 222-229. https://doi.org/10.1037/cep0000349

# **Invited TALKS**

BLRB Research Group Seminar, University of Chicago

2024

## CONFERENCE PRESENTATIONS

Peng, S., & Bainbridge, W.A. (2025, May). Image memorability predicts widespread virality on social media. Vision Science Society (VSS), St. Pete Beach, FL, US. [Poster]

Peng, S., & Levine, B. (2025, Mar). Cortical thickness and volume differences in individuals with Severely-Deficient Autobiographical Memory. Cognitive Neuroscience Society (CNS), Boston, MA, US. [Poster]

Feminella, J., Peng, S., & St Jacques, P. (2024, Apr). Dimensionality affects memory for events in immersive virtual reality. Cognitive Neuroscience Society (CNS), Toronto, ON, CA. [Poster]

Peng, S., & Dixon, P. (2022, July). Mind wandering and temporal focus on task switching. Canadian Society for Brain, Behavior and Cognitive Science (CSBBCS), Halifax, NS, CA. [Poster]

Peng, S., & Dixon, P. (2022, Apr). Involvement of mind wandering in the inconsistent contradiction effect during narrative reading. Royce Harder Conference, Edmonton, AB, CA. [Poster]

### TEACHING EXPERIENCES

### **Teaching Assistant**

PSY202H1 - Statistics II

Fall 2025

PSY201H1 - Statistics I

Summer 2025|Fall 2024

PSY100H1 – Introductory Psychology

Winter 2026 Winter 2025

# HONORS & RESEARCH AWARDS

Rivka Zeng-van Klei (York University, Neuroscience undergraduate)	May-Aug 2025
RESEARCH MENTORSHIP	
Fundraising Committee for Toronto Area Memory Group (TAMeG)	2024-Present
Member of Cognitive Science Research Community (CoRC) at University of Toronto	2024-Present
Planning Committee for Baycrest's Rotman Research Institute Annual Research Day	2025-Present
PROFESSIONAL ACTIVITIES	
Dean's Honor Roll in Science	2021-2023
Clare Patershuk Travel Award [750 CAD]	2022
Dean's Silver Medal in Science	2023
M.A. Director Scholarship [2,000 USD]	2023
Maroon Research Scholarship [30,000 USD]	2023
Max & Ruth Wiseman Fellowship [2,300 CAD]	2024
Jack & Rita Catherall Travel Fund [500 CAD]	2025

## **TECHNICAL SKILLS**

#### **Programming & Computing Skills:**

- Python (PsychoPy & PyTorch), R, MATLAB, Bash, JavaScript (jsPsych), HTML, CSS
- High Performance Computing (parallelization, SLURM job scheduling, cluster usage)

#### Software:

- Neuroimaging: FreeSurfer, SPM12, AFNI, FSL, Mango
- General: Vuze VR Studio, Unity, Pavlovia, Prolific, Qualtrics, TESTABLE, GitHub, Adobe Premiere Pro

## **Neuroimaging Methods:**

- fMRI: Preprocessing, Univariate/Multivariate Analysis, Representational Similarity Analysis, Functional Connectivity, Functional Cofluctuations, Encoding/Decoding Model, Finite Impulse Response Model, covSTATIS
- EEG/ERP: Data Preprocessing (EEGLAB), ERP Analysis

## **Analyses:**

- Machine Learning: Linear/Polynomial Model, SVM/SVR, Decision Trees, Cross-Validation, Clustering, PCA/ICA, t-SNE, Multi-Dimensional Scaling, Ensemble Learning, Natural Language Processing, Partial Least Square Regression/Classification, Optimal Transport, etc.
- Bayesian Analysis: Regression, Casual modeling, MCMC, Multilevel modeling
- Deep Learning: CNN, LLM, BERT, CLIP

## **CERTIFICATES**

### **Computational Neuroscience**

2023

Neuromatch Academy

## REFERENCES

Brian Levine, Ph.D., C.Psych., ABPP-cn, FRSC Professor, University of Toronto / Senior Scientist, Rotman Research Institute Ph.D. Thesis Supervisor blevine@research.baycrest.org

#### Bradley Buchsbaum, Ph.D.

Associate Professor, University of Toronto / Senior Scientist, Rotman Research Institute Ph.D. Thesis Committee Member / Research Collaborator bbuchsbaum@research.baycrest.org

Wilma Bainbridge, Ph.D. Associate Professor, University of Chicago Master's Thesis Main Supervisor wilma@uchicago.edu