

DEVON YANITSKI

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Department of Psychology, University of Alberta, Edmonton, Alberta, Canada

ACADEMIC DEGREES

- 2026–Now Department of Psychology, University of Alberta, Edmonton, Canada
Ph.D., Psychology
Supervisor: Dr. Jeremy B. Caplan, Professor, Department of Psychology.
Computational Memory Lab. Research on human memory and EEG, and on large language models as instruments for psychological measurement.
- 2021–2026 Department of Psychology, Faculty of Science, University of Alberta, Edmonton, Canada
B.Sc. with Specialization, Psychology
Graduated **With Distinction**; degree conferred 18 March 2026.
First Class Standing in every assessed year (annual GPA 3.8–3.9 on the 4.0 scale).

PEER-REVIEWED PUBLICATIONS

None to date.

SUBMITTED PEER-REVIEWED PUBLICATIONS

- 1.) Westbury, C., **Yanitski, D.**, & Brooker, A. (in review). *Devisal of the fittest: Using genetic programming to estimate lexical likely need*. Manuscript under revision for *Behavior Research Methods*.
Impact factor: 5.0 (2025 JCR; 5-year 7.2). Quartile: Q1.
Contribution: 40%. I implemented the large-language-model components of the work, contributed to writing the manuscript, and am preparing the response to peer review.

OTHER PUBLICATIONS

None to date.

PRESENTATIONS

International

- 1.) **Yanitski, D.**, & Westbury, C. (2026, May 1). *Separating signal from wording: Decomposing the autism–alexithymia correlation using semantic factor analysis* [Poster presentation]. Banff Annual Seminar in Cognitive Science, Banff, AB, Canada. [Poster]
- 2.) **Yanitski, D.**, Shalamberidze, T., Chen, Y. Y., & Caplan, J. B. (2026, March 8). *Mass univariate analysis implicates the late parietal in associative recognition success* [Poster presentation]. 33rd Annual Meeting of the Cognitive Neuroscience Society, Vancouver, BC, Canada. [Poster]
Abstract published in the *Proceedings of the Annual Meeting of the Cognitive Neuroscience Society*. [Proceedings]

Local

- 1.) **Yanitski, D.**, Shalamberidze, T., Chen, Y. Y., & Caplan, J. B. (2026, April 7). *Data-driven mapping of associative memory: A mass univariate ERP analysis* [Poster presentation]. NMHI Research Day, Neuroscience and Mental Health Institute, University of Alberta, Edmonton, AB, Canada. [Poster]
- 2.) **Yanitski, D.**, & Westbury, C. (2026, March 20). *Semantic factor analysis: Analyzing psychometric scales using large-language models* [Conference talk]. Joseph R. Royce Research Conference, University of Alberta, Edmonton, AB, Canada. [Slides]
- 3.) **Yanitski, D.**, & Westbury, C. (2026, March 4). *Semantic factor analysis: Analyzing psychometric scales using LLMs instead of humans* [Poster presentation]. College of Natural and Applied Sciences (CNAS) Research Day, University of Alberta, Edmonton, AB, Canada. [Poster]
- 4.) **Yanitski, D.**, & Westbury, C. (2026, February 13). *Semantic factor analysis: Creating and analyzing psychometric scales using LLMs instead of humans* [Seminar talk]. Cognitive Seminar Series (CogSem), Department of Psychology, University of Alberta, Edmonton, AB, Canada. [Video] [Slides]
- 5.) **Yanitski, D.**, & Westbury, C. (2025, November 5). *Using large-language models to analyze and name factors in psychometric scales* [Poster presentation]. Faculty of Science AI Day, University of Alberta, Edmonton, AB, Canada. [Poster]

SOFTWARE

2026	semanticfa — R package, Comprehensive R Archive Network (CRAN) [CRAN] With C. Westbury. Recovers a psychometric scale's latent structure from item wording alone, with no human response data: factor analysis on item embeddings, factor retention against embedding-adapted nulls, semantic loadings, redundancy checks, and short-form construction.
2026	Muse Visualizer [GitHub] Real-time EEG visualization for the Muse headband over Lab Streaming Layer, rendering raw waveforms and Delta/Theta/Alpha/Beta/Gamma band power.
2025	AP-RAG [GitHub] A graph-based retrieval-augmented generation system over academic papers, so that research agents can ground their outputs in the literature rather than hallucinate it.

AWARDS

Scholarships

2026–2027	University of Alberta Graduate Recruitment Scholarship — \$5,000 University of Alberta, Faculty of Graduate and Postdoctoral Studies. 1 Sep 2026 to 31 Aug 2027. Scope: institutional. Status: accepted.
2024–2025	Jason Lang Scholarship — \$1,000 Government of Alberta, held at the University of Alberta. 1 Sep 2024 to 31 Jul 2025. Scope: provincial.

- 2023–2024 **Jason Lang Scholarship** — \$1,000
Government of Alberta, held at the University of Alberta. 1 Sep 2023 to 31 Jul 2024. Scope: provincial.
- 2022–2023 **Jason Lang Scholarship** — \$1,000
Government of Alberta, held at the University of Alberta. 1 Sep 2022 to 31 Jul 2023. Scope: provincial.
- 2022 **Faculty of Science Undergraduate Scholarship** — \$1,500
Faculty of Science, University of Alberta. Awarded 1 Sep 2022. Scope: institutional.
- 2021–2022 **Alexander Rutherford Scholarship** — \$2,500
Government of Alberta, held at the University of Alberta. 1 Sep 2021 to 31 Jul 2022. Scope: provincial.

Recognitions

- 2026 **Graduated With Distinction**
B.Sc. with Specialization, Psychology, University of Alberta. Conferred 18 March 2026. Scope: institutional.
- 2021–2025 **First Class Standing** (2021/2022, 2022/2023, 2023/2024, 2024/2025)
Faculty of Science, University of Alberta. Scope: institutional.

GRANTS HELD/SUBMITTED

None to date.

TEACHING

- Fall 2026 **Graduate Teaching Assistant**, Department of Psychology, University of Alberta, Edmonton, Canada
PSYCH 105: Individual and Social Behavior. Course instructor: Dr. Andrés Camacho-Alpízar. 1 September to 22 December 2026; 6 hours per week (96 hours). Duties: grading assignments, holding office hours and answering student questions, and preparing and proctoring examinations.

SERVICE

- 2026–Present **Co-organizer**, Brain Imaging Journal Club, University of Alberta
Scope: departmental. Weekly. Co-organize the schedule and paper selection, and lead discussion sessions.

VOLUNTEER/EXTRACURRICULAR WORK

- 2026–Present **EEG Lab Manager**, Shared Cognitive Neuroscience Lab (SCNL)/EEG Lab, University of Alberta
Scope: departmental/institutional. September 2026 to present; 3 hours per week.
The SCNL is a shared, multi-researcher EEG facility combining eight independent labs and additional collaborators, most from the Department of Psychology. I manage the shared space: equipment upkeep and setup, scheduling across member labs, participant-testing logistics, and training and support for the researchers and students who use it. [[Virtual tour](#)]
- 2025–2026 **Research Assistant**, Department of Psychology, University of Alberta
Scope: departmental. December 2025 to August 2026, full-time contract; 35 hours per week.
Conducted research on human memory using electroencephalography. Trained in EEG recording with human participants, and specialized in advanced statistical analysis of ERP data, including mass univariate analysis and classifier-based decoding analyses.