

AGNESSA KARAPETIAN
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Fluent in English, French and Russian
Intermediate in German

EDUCATION

Doctoral student: Cognitive neuroscience 10/2020 – Present
Freie Universität Berlin, Berlin, Germany

- Supervisor: Dr. Radoslaw M. Cichy
 - Prospective thesis title: *Scene processing in the visual cortex and deep neural networks.*

Master of Science: Social, Cognitive and Affective Neuroscience 09/2017 – 10/2019
Freie Universität Berlin, Berlin, Germany

- Supervisor: Dr. Radoslaw M. Cichy
 - Thesis: *Modality-dependent and -independent representation of categories in the visual and auditory cortices.*
- Final grade: 1,2.

Bachelor of Science: Honours Psychology 09/2014 – 06/2017
McGill University, Montréal, Canada

- Supervisor: Dr. Anna Weinberg
 - Theses: *Maladaptive fear of mistakes: the role of the error-related negativity as a neural correlate of perfectionism and anxiety* (2016) and *Neural correlates of stress and depression in first-year students: the role of the error-related negativity* (2017).
- Final GPA: 3.75 (First Class Honours).

Diploma of College Studies: Environmental Science (Dean's list) 08/2012 – 06/2014
Dawson College, Montréal, Canada

COMPUTER SKILLS: MATLAB (Fieldtrip, libSVM, Psychtoolbox), Python (Jupyter Notebooks, NumPy, SciPy), PyTorch, TensorFlow, LaTeX, Bash.

RESEARCH EXPERIENCE

Doctoral student 10/2020 – Present
Neural dynamics of visual cognition (Dr. Radoslaw M. Cichy), Department of Education and Psychology, Freie Universität Berlin, Berlin, Germany

- Funded by the Einstein Center for Neurosciences to complete a PhD in computational cognitive neuroscience;
- First project: *Neural dynamics of perceptual decision-making*, involves data collection (EEG), analysis (SVM, MVPA, RSA), and modelling (DNN).

SmartStart Student 11/2019 – 09/2020
Neural dynamics of visual cognition (Dr. Radoslaw M. Cichy), Department of Education and Psychology, Freie Universität Berlin, Berlin, Germany

Neural information processing group (Prof. Dr. Klaus Obermayer), Institute of Software Engineering and Theoretical Computer Science, Technische Universität Berlin, Berlin, Germany

- Enrolled in a year-long pre-PhD program intended to provide a transition into a computational neuroscience PhD by collaborating with an experimental and a theoretical lab;
- Conducted a project involving data collection (EEG), analysis (SVM), and modelling.

Master's student researcher 01/2019 – 10/2019
Neural dynamics of visual cognition (Dr. Radoslaw M. Cichy), Department of Education and Psychology, Freie Universität Berlin, Berlin, Germany

- Worked on a project in object recognition in collaboration with a PhD student;
- Recorded EEG data and analyzed the findings (MATLAB: Fieldtrip, SVM, MVPA);
- Wrote a master's thesis detailing the findings and defended it.

Student research assistant 04/2018 – 07/2019
Adaptive Rationality Center (Dr. Bernhard Spitzer), Max-Planck-Institut für Bildungsforschung, Berlin, Germany

- Programmed a working memory experiment in MATLAB (Psychtoolbox);
- Led the organization of a setup of a realtime EEG classifier for the Long Night of the Sciences;
- Helped with various other tasks (e.g. setting up equipment, admin).

Summer student Summer 2017

The Levine Lab (Dr. Brian Levine), Rotman Research Institute, Baycrest Hospital, Toronto, Canada

- Awarded with a grant of \$4788 CAD to work in a neuropsychology lab over the summer;
- Processed data from EEG recordings and fMRI scans;
- Ran diffusion tensor imaging (DTI) analyses on fMRI scans;
- Worked on the French-English translation of a cognitive rehabilitation manual.

Honours student researcher 09/2015 – 05/2017
Translational Research in Affect and Cognition Lab (TRAC Lab; Dr. Anna Weinberg), Department of Psychology, McGill University, Montréal, Canada

- Conducted two individual research projects in the field of clinical neuroscience;
- Collected EEG, self-reported and behavioural data from participants;
- Analyzed the collected data with BrainVision Analyzer, SPSS and MATLAB;
- Wrote two theses discussing the project and presented two posters at the departmental poster fairs summarizing the findings of the studies.

Research assistant 06/2015 – 05/2017
McGill Health Psychology Research Group (HPRG; Dr. Annett Körner), Department of Education, McGill University, Montréal, Canada

- Entered participants' collected data from questionnaires into SPSS files;
- Conducted a systematic literature review for the research project of a graduate student.

DAAD RISE interning student researcher Summer 2016
AG Klinische Psychologie und Psychotherapie (Dr. Cornelia Exner), Institut für Psychologie Universität Leipzig, Leipzig, Germany

- Awarded with a DAAD grant to conduct a research project in a clinical psychology lab;
- Created an implicit association test experiment in MATLAB (Psychtoolbox);
- Collected behavioural data from participants and analyzed it in *R*.

CONFERENCE POSTER PRESENTATIONS

Karapetian, A., Kashef, Y., Dechet, F., Obermayer, K. (2020, September). *Representational similarity analysis of deep neural networks trained on visual tasks*. Poster presented at the Bernstein Conference (virtual), Berlin, Germany.

Karapetian, A., Kashef, Y., Dechet, F., Obermayer, K. (2020, August). *Representational similarity analysis of deep neural networks trained on visual tasks*. Poster presented at the Deep Learning and Reinforcement Learning Summer School (virtual), Montréal, Canada.

Iamshchinina, P., **Karapetian, A.**, Kaiser, D., Cichy, R. M. (2019, August). *Neural dynamics of categorical information in visual and auditory signals*. Poster presented at the European Conference on Visual Perception (ECPV), Leuven, Belgium.

Karapetian, A., Sandre, A., Weinberg, A. (2017, April). *Neural correlates of stress and depression in first-year students: the role of the error-related negativity*. Poster presented at the McGill Department of Psychology Poster Fair, Montréal, Canada.

Karapetian, A., French, T., Weinberg, A. (2016, April). *Maladaptive fear of mistakes: the role of error-related negativity as a neural correlate of perfectionism and anxiety*. Poster presented at the McGill Department of Psychology Poster Fair, Montréal, Canada.

Karapetian, A., Czajkowska, Z., Coroiu, A., DiMillo, J., Körner, A. (2016, May). *Construct validation of the skin self-examination self-efficacy scale*. Poster presented at the Canadian Association of Psychosocial Oncology (CAPO) Conference, Halifax, Canada.

Coroiu, A., Donovan, A., **Karapetian, A.**, Kingsland, E., Thombs, B.D., Körner, A. (2016, May). *The effect of psychoeducational interventions on health outcomes in individuals at increased risk for melanoma: A systematic review of randomized controlled trials*. Poster presented at the International Behavioural Trials Network (IBTN) Conference, Montréal, Canada.

ACADEMIC EMPLOYMENT HISTORY

Academic Tutor

09/2013 – 06/2017

Succès Scolaire, Montréal, Canada

Dawson College, Montréal, Canada

- Taught English as second language, mathematics, general chemistry and calculus I.

EXTRACURRICULAR ACTIVITIES

Deep learning and reinforcement summer school, MILA, Montréal (online), August 2020.

Volunteer at FENS 2018, Berlin, Germany, June 2018.

AWARDS

Einstein Center for Neurosciences PhD Fellowship

10/2020 – 10/2023

- Award of 1750 € per month for the completion of a PhD project in neuroscience.

DAAD Graduate School Scholarship

10/2018 – 10/2019

- Award of 10 200 € for an international student to pursue graduate studies in Germany.

DAAD RISE Scholarship

Summer 2016

- Award of 1700 € for a BSc student to complete an internship in Germany over the summer.