Sofia Krasovskaya
Curriculum Vitae

+354 7807168   krasov.sofia[at]gmail.com   Reykjavik, Iceland

Education and training

PhD
University of Iceland
Reykjavik, Iceland
Field of study: Cognitive Neuroscience

[2021 – Oct 2023]

Thesis: Improvement of spatiotopic models of vision with retinotopic input and vector based saccadic generation

Supervisors: Dr. Árni Kristjánsson, Dr. W. Joseph MacInnes

PhD
HSE University
Moscow, Russia
Field of study: Cognitive Neuroscience (Psychophysiology)

[2018 – 2022]

Terminated & transferred to University of Iceland

Thesis: Improvement of spatiotopic models of vision with retinotopic input and vector based saccadic generation

Supervisors: Dr. Árni Kristjánsson, Dr. W. Joseph MacInnes

MSc
HSE University
Moscow, Russia
Field of study: Cognitive Neuroscience

[2016 – 2018]

Thesis: Deep learning neural nets as a model of saccadic generation

Supervisor: Dr. W. Joseph MacInnes

BA
Moscow State Linguistic University (MSLU)
Moscow, Russia
Field of study: Linguistics

[2009 – 2013]

Thesis: The correlation between prosodic and non-verbal means in crosscultural communication

Supervisor: Dr. Nadezhda Tsibulya

Publications

Krasovskaya S., Kristjánsson Á., MacInnes W.J. (*in revision*). Assessing the optimal size of the Functional Field of View in a gaze-contingent search paradigm.

Krasovskaya, S., Kristjánsson, Á., & MacInnes, W.J. (2023). Microsaccade rate activity during the preparation of pro- and antisaccades. *Attention, Perception, & Psychophysics*. https://doi.org/10.3758/s13414-023-02731-3

Krasovskaya, S., Zhulikov, G., & MacInnes, W.J. (2021). Deep Learning Neural Networks as a Component of a Model of Saccadic Generation. *PsyArXiv.* https://doi.org/10.31234/osf.io/zr6ma

Merzon, L., Malevich, T., Zhulikov, G., **Krasovskaya, S.,** & MacInnes, W. J. (2020). Temporal Limitations of the Standard Leaky Integrate and Fire Model. *Brain Sciences*, *10*(1), Article 1. https://doi.org/10.3390/brainsci10010016

Krasovskaya, S., & MacInnes, W. J. (2019). Salience Models: A Computational Cognitive Neuroscience Review. *Vision*, *3*(4), Article 4. https://doi.org/10.3390/vision3040056

Conferences

44th annual European Conference on Visual Perception (ECVP)
[Nijmegen, the Netherlands, 27/08/2022 – 01/09/2022]
Presentation (poster): The effect of task difficulty on the dynamics of functional field of view adaptability: a gaze-contingent study

43rd annual European Conference on Visual Perception (ECVP)
[Online, 22/08/2021 – 27/08/2021]
Presentation (poster): The effect of task difficulty on the dynamics of functional field of view adaptability

Psychonomics Annual Meeting
[Online, 19/11/2020 – 22/11/2020]
Presentation (poster): Microsaccade suppression as a measure of oculomotor inhibition in the antisaccade task

20th European Conference on Eye Movements (ECEM)
[Alicante, Spain, 18/08/2019 – 22/08/2019]
Presentation (poster): Microsaccade suppression during antisaccade generation in the Posner cueing paradigm

XVI European Congress of Psychology (ECP)
[Moscow, Russia, 02/07/2019 – 05/07/2019]
Presentation (poster): The effect of the antisaccade task on microsaccade suppression in the Posner cueing paradigm

41st annual European Conference on Visual Perception (ECVP)
[Trieste, Italy, 26/08/2018 – 30/08/2018]
Presentation (poster): Temporal distribution of saccades with deep learning salience maps

40th annual European Conference on Visual Perception (ECVP)
[Berlin, Germany, 27/08/2017 – 31/08/2017]
Presentation (poster): Training restricted Boltzmann machines to generate human-like eye movements

Honours and Awards

Winner of the Advanced doctoral programme
HSE University [2019]

The Advanced doctoral programme provides an increased scholarship for doctoral graduates awarded each month for the duration of their studies.

The Programme is similar to international post-graduate programmes, such as PhD programmes at U.S. universities, and not only includes an obligatory educational part, but also presumes that students spend their full working day at their faculty, department, or research centre. This means that they take an active part in events organized by the research department. This requirement aims to focus doctoral students on academic development and better adjust them to the academic environment.

Best poster award
TMLSS [2018]

The Transylvanian Machine Learning Summer School, currently known as the Eastern European Machine Learning Summer School (EEMLSS) took place in Cluj-Napoca, Transylvania, Romania, from July 16-22, 2018. I received the best poster award for the poster titled *Deep-learning neural networks as a model of saccadic generation.*

Link: https://www.hse.ru/en/neuroling/vml/news/222000510.html

Winner of the HSE University Olympiad for University Students and Graduates
HSE University [2016]

Winners of this competition receive a full tuition waiver for their master's studies. This allowed me to continue my studies in the field of cognitive neuroscience.

Research experience

Icelandic Vision Lab (IVL)
[2021 – 2023]

PhD researcher

Vision Modelling Lab (VML)
[2018 – 2022]

PhD researcher

***Attention, Computational Models and Eye Movements*
Research and Study Group**
[2017 – 2018]

Researcher

***Attention, Computational Models and Eye Movements*
Research and Study Group**
[2017 – 2018]

Research assistant

Teaching experience

Cognitive Psychology
[01/2024 – 05/2024]

Adjunct lecturer. Taught a course for undergrads at the University of Akureyri, Iceland

Icelandic Vision Lab (IVL) seminars
[2019 – Current]

Occasional scientific presentations at weekly IVL meetings

Vision Modelling Lab (VML) seminars
[2018 – 2022]

Presenting at bi-weekly VML seminars

Eyetracking Methods and Techniques
[2019 – 2022]

Practice sessions for undergraduate students at HSE University

Perception and Cognition
[09/2022 – 11/2022]

Teaching assistant for the practical part of the class during which students learned to use Psychopy Builder for experiment setup

Methods of Eyetracking in the context of reading
[04/10/2021]

Guest lecture for undergraduate students (Sirius Science and Technology University)

Topic: *Eyetracking: studying the visual system and other possible applications*

Introduction to Cognitive Psychology
[11/2020 – 12/2020]

Held seminars and exams for undergraduate students at HSE University

Additional training

Kriegeskorte Lab
[25/02/2022]

Invited talk: Online presentation of a part of my doctoral project

Academic mobility between HSE University and the University of Iceland
[2019 – 2022]

Internships, Dual-PhD programme

Applied Cognitive Science Autumn School
[10/2020 – 11/2020]

Participant

Oxford Autumn School in Neuroscience
[28/09/2020 – 29/09/2020]

Participant

Neuromatch Academy
[10/07/2020 – 29/07/2020]

Active participant

The VML Advanced Eye Tracking Workshop
[25/10/2018 – 26/10/2018]

Part of the workshop organising team
Presentation: Models of Fixation
https://www.hse.ru/en/neuroling/vml/news/228855476.html

Transylvanian Machine Learning Summer School (TMLSS)
[16/07/2018 – 22/07/2018]

Presentation: Deep-learning neural networks as a model of saccadic generation

Technical skills

Programming and experiment setup

Python // PsychoPy // Matlab // Psychtoolbox-3 // Google Collab // OpenSesame // Java // SR Research Eyelink hardware and software

Data analysis

R // Python // SPSS Amos

Miscellaneous

Brainstorm (EEG) // SPM 12 for fMRI // Deep Learning Neural Nets // Zotero // Mendeley

Language skills

English	*Fluent*		Icelandic	*A1*
Russian	*Fluent*		Malay	*A1*
French	*B2*		Spanish	*A2*

Interests and Hobbies

Sports	I am a dedicated athlete and have participated in official state swimming and squash competitions in Malaysia where I grew up. I am currently a competing powerlifter, a non-competing swimmer, and an amateur cold openwater swimmer. I have a brown belt in Taekwondo and a green belt in Karate. I enjoy an active lifestyle in general.
Travel	I love adventure and enjoy travelling and learning about the customs, languages and history of other cultures. Hiking, scuba diving, eating and spending time in nature make me happy.
Other interests	I like to learn, game, knit, read, explore, draw, write, drive, ride, cycle, cook, skate, listen to music, and so much more. I believe that balance in life is crucial for mental and physical well-being.

References

Dr. W. Joseph MacInnes
School of Mathematics and Computer Science
Faculty of Science and Engineering
Swansea University, UK
Email: william.macinnes[at]swansea.ac.uk

Dr. Árni Kristjánsson
Faculty of Psychology
School of Health Sciences
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Dr. Sabrina Hansmann-Roth
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