

Lukas Muttenthaler | CV

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Education

- **PhD, Computational Neuroscience** **Leipzig, Germany**
2020-
ViCC group, Max-Planck-Institute for Human Cognitive and Brain Sciences
Topic: Semantic representations of objects in human brains and artificial intelligence systems
Advisor: Martin Hebart
- **MSc, IT and Cognition (NLP)** **Copenhagen, Denmark**
2018-2020
Department of Computer Science, University of Copenhagen
Thesis: Deciphering the inner workings of Transformers in the realm of subjectivity
Advisors: Isabelle Augenstein, Johannes Bjerva
- **BSc, Psychology** **Vienna, Austria**
2015-2018
Faculty of Psychology, University of Vienna
Thesis: How language shapes motion event cognition
Advisors: Ulrich Ansorge, Thomas Ditye
- **BA, Political Science & Philosophy** **Vienna, Austria**
2012-2015
Faculty of Social Sciences, University of Vienna
Advisor: Ursula Naue

Employment

- **PhD Researcher** **Leipzig, Germany**
August 2020 -
ViCC group, Max-Planck-Institute for Human Cognitive and Brain Sciences
- **Research Assistant & Programmer** **Copenhagen, Denmark**
May 2019 - January 2020
Machine Learning Section, Department of Computer Science
- **Data Analyst** **Copenhagen, Denmark**
January - April 2019
Technology Advisory, Ernst & Young (EY)
- **Research Intern** **Munich, Germany**
July - September 2017
Department of Clinical Neuropsychology, LMU Munich
- **Student Research Assistant** **Vienna, Austria**
July 2016 - June 2018
Cognitive Psychology, Faculty of Psychology

Scholarships & Achievements

- **EDOC 2019** **Paris, France**
2019
Best Demonstration Award
- **Fund of Excellence** **Vienna, Austria**
2018
one of a few candidates who received funding to pursue a Master's in a STEM subject

- **Scholarship for Academic Excellence** **Vienna, Austria**
2016 - 2018
awarded by UV for three consecutive years for excellent grades in Psychology
- **Performance Scholarship** **Vienna, Austria**
2016 - 2018
awarded by Julius-Raab-Foundation due to high achievements in BSc Psychology
- **Scholarship for Academic Excellence** **Vienna, Austria**
2013 - 2015
awarded by UV for three consecutive years for excellent grades in Political Science

Teaching

- **Teaching Assistant** **Vienna, Austria**
2017-2018
Cognitive Psychology II, Faculty of Psychology
Visual Perception, Memory, Attention, Intelligence

Skills

- **Natural Languages:**
English (IELTS 8.0), German (native)
- **Programming Languages:**
Python (extensive), Matlab (intermediate), R (basic), SQL (basic)
- **Libraries:**
PyTorch, TensorFlow, Keras, NumPy, Scikit-Learn, sciPy, Pandas, spaCy
- **Other technical skills:**
L^AT_EX, Unix, Bash, Slurm, GitHub, GitBash, Overleaf, Jupyter

Publications

- Peer-reviewed.....
- SUBMITTED: **Muttenthaler, L.**, Augenstein, I., Bjerva, J. (2020). Unsupervised Evaluation of Question Answering. *Under Review for EMNLP 2020*.
 - López, H. A., Marquard, M., **Muttenthaler, L.** Strømsted, R. (2019). Assisted Declarative Process Creation from Natural Language Descriptions. In 2019 IEEE 23rd International Enterprise Distributed Object Computing Conference (EDOC). DOI: 10.1109/EDOCW.2019.00027
[Best Demonstration Award]
 - **Muttenthaler, L.**, Lucas, G., Amann, J. (2019). Authorship Attribution in Fan-fictional Texts Given Variable Length Character and Word *n*-grams - Notebook for PAN at CLEF 2019. In Linda Cappellato, Nicola Ferro, David E. Losada and Henning Mueller, editors, *CLEF 2019 Labs and Workshops, Notebook Papers, September 2019*. CEUR-WS.org.
[Winning team of the PAN authorship attribution competition]
 - Buesel, C., Ditye, T., **Muttenthaler, L.**, Ansorge, U. (2019). A Novel Test of Pure Irrelevance-Induced Blindness. *Frontiers in Psychology*, 10:375. DOI: 10.3389/fpsyg.2019.00375
 - **Muttenthaler, L.** (2019). Effective enhancement of attentional functions in the amblyopic brain. *Journal of European Psychology Students*, 10(1), 1-10. DOI: 10.5334/jeps.435

Preprints.....

- **Muttenthaler, L.** (2020). Subjective Question Answering: Deciphering the inner workings of Transformers in the realm of subjectivity. Master's thesis, University of Copenhagen.
- **Muttenthaler, L.**, Hollenstein, N., Barrett, M. (2020). Human brain activity for machine attention.