Lukas Muttenthaler | CV

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Education

PhD, Computational Neuroscience   **Leipzig, Germany**
ViCC group, Max-Planck-Institute for Human Cognitive and Brain Sciences   *2020 -*
Topic: "Semantic representations of objects in the human brain and artificial intelligence systems"
Main advisor: Martin Hebart

MSc, IT and Cognition (> 60 ECTS in Computer Science)   **Copenhagen, Denmark**
Department of Computer Science, University of Copenhagen   *2018 - 2020*
Thesis: "Subjective QA: Deciphering the inner workings of Transformers in the realm of subjectivity" (NLP)
Advisors: Johannes Bjerva, Isabelle Augenstein

BSc, Psychology   **Vienna, Austria**
Faculty of Psychology, University of Vienna   *2015 - 2018*
Thesis: "How language shapes motion event cognition" (Cognitive Psychology)
Advisors: Thomas Ditye, Ulrich Ansorge

BA, Political Science & Philosophy   **Vienna, Austria**
Faculty of Social Sciences, University of Vienna   *2012 - 2015*
Advisor: Ursula Naue

Employment

PhD Researcher   **Leipzig, Germany**
ViCC group, Max-Planck-Institute for Human Cognitive and Brain Sciences   *August 2020 -*

Research Assistant & Programmer   **Copenhagen, Denmark**
Machine Learning, Department of Computer Science, University of Copenhagen   *May 2019 - January 2020*

Data Analyst   **Copenhagen, Denmark**
Technology Advisory, Ernst & Young (EY)   *January - April 2019*

Research Intern   **Munich, Germany**
Department of Clinical Neuropsychology, LMU Munich   *July - September 2017*

Student Research Assistant   **Vienna, Austria**
Cognitive Psychology, Faculty of Psychology, University of Vienna   *July 2016 - June 2018*

Scholarships & Awards

EDOC 2019   **Paris, France**
Best Demonstration Award for our paper   *2019*
"Assisted Declarative Process Creation from Natural Language Descriptions"

Fund of Excellence   **Vienna, Austria**
one of a few candidates who received funding to pursue a Master's in a STEM subject   *2018*

Scholarship for Academic Excellence   **Vienna, Austria**
awarded by UV for three consecutive years for excellent grades in Psychology   *2016 - 2018*

Performance Scholarship   **Vienna, Austria**
awarded by Julius-Raab-Foundation due to high achievements in BSc Psychology   *2016 - 2018*

Scholarship for Academic Excellence   **Vienna, Austria**
awarded by UV for three consecutive years for excellent grades in Political Science   *2013 - 2015*

Teaching

Teaching Assistant   **Vienna, Austria**
Cognitive Psychology II, Faculty of Psychology, University of Vienna   *2017 - 2018*
Visual Perception, Memory, Attention, Language, 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
- **Miscellaneous:**
  LaTeX, 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. arXiv preprint arXiv:2006.08342. (Master's thesis, University of Copenhagen.)

- **Muttenthaler, L.**, Hollenstein, N., Barrett, M. (2020). Human brain activity for machine attention. arXiv preprint arXiv:2006.05113.