Wolf De Wulf

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Education

Doctor of Philosophy (PhD) 2023 - Present
Computational Neuroscience University of Edinburgh, United Kingdom

Master of Science by Research (MScR) 2022 - 2023
Biomedical AI University of Edinburgh, United Kingdom

Master of Science (MSc) 2020 - 2022
Applied Sciences and Engineering: Computer Science Vrije Universiteit Brussel, Belgium

Bachelor of Science (BSc) 2017 - 2020
Computer Science Vrije Universiteit Brussel, Belgium

Experience

NeuroRSE Intern Summer 2024
Contributed to Pynapple, a Python package for neural analysis. Flatiron Institute, USA

NeuroAI Intern Summer 2024
Predictive Coding in the Olfactory Cortex, Albeanu Lab Cold Spring Harbor Laboratory, USA

Autumn School October 2023
Computational Neuroscience & NeuroAI Ulster University, United Kingdom

MScR Thesis 2023
Transformer-Based EMG Decoding for Prosthetic Fingers University of Edinburgh, United Kingdom

MSc Thesis 2022
Transfer learning in BCIs: Pretrained Transformers for Classifying EEG Vrije Universiteit Brussel, Belgium

Machine Learning Engineer (contact: Prof. Johan Loeckx) August 2021
Developed an ML app to match patients with psychologists. Vrije Universiteit Brussel, Belgium

BSc Thesis 2020
Translating Answer Set Programs into Pseudo-Boolean Theories Vrije Universiteit Brussel, Belgium

Summer School August 2018
Information & Communication Technologies Xidian University, China

Teaching

Tutor/Marker 2023-2025
Machine Learning & Pattern Recognition University of Edinburgh

Awards

Vrije Universiteit Brussel Prize of Science 2022
BrEA Student Engineering Prize 2022

Skills

Languages: Dutch (native), English (C1), French (C1)
Programming: Python (Pytorch, JAX), R, MATLAB, C++, C, Java, Scala, Prolog, Lisp
Computation: Virtual Envs (Docker, Anaconda, UV), High Performance Computing (Slurm, Kubernetes)

Publications

De Wulf, W., & Bogaerts, B. (2020). LP2PB: Translating Answer Set Programs into Pseudo-Boolean Theories. *Proceedings 36th International Conference on Logic Programming (ICLP, Technical Communications)*, *325*, 206–219. https://doi.org/10.4204/EPTCS.325.25

Gema*, A. P., Grabarczyk*, D., **De Wulf*, W.**, Borole, P., Alfaro, J., Antonio, Minervini, P., Vergari, A., & Rajan, A. (2024). Knowledge Graph Embeddings in the Biomedical Domain: Are They Useful? A Look at Link Prediction, Rule Learning, and Downstream Polypharmacy Tasks. *Bioinformatics Advances*. https://doi.org/10.1093/bioadv/vbae097

Turishcheva, P., Fahey, P. G., Vystrčilová, M., Hansel, L., Froebe, R. E., Ponder, K., Qiu, Y., Willeke, K. F., Bashiri, M., Baikulov, R., Zhu, Y., Ma, L., Yu, S., Huang, T., Li, B. M., **De Wulf, W.**, Kudryashova, N., Hennig, M. H., Rochefort, N., … Ecker, A. S. (2024,). Retrospective for the Dynamic Sensorium Competition for predicting large-scale mouse primary visual cortex activity from videos. *The Thirty-Eight Conference on Neural Information Processing Systems Datasets and Benchmarks Track*. https://openreview.net/forum?id=gViJjwRUlM

Vandesande*, D., **De Wulf*, W.**, & Bogaerts, B. (2022,). QMaxSATpb: A Certified MaxSAT Solver. *Proceedings 16th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR)*. https://doi.org/10.1007/978-3-031-15707-3_33

* co-first authors