Wolf De Wulf

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Education

Doctor of Philosophy (PhD) — 2023 – …
Computational Neuroscience — University of Edinburgh, United Kingdom

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

Master of Science (MSc) — 2020 – 2022
Applied Sciences and Engineering: Computer science (93%) — Vrije Universiteit Brussel, Belgium

Bachelor of Science (BSc) — 2017 – 2020
Computer science (84%) — Vrije Universiteit Brussel, Belgium

Experience

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 Control of 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
LP2PB: 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 — 2023,2024
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, C++, C, Java, Scala, Prolog, Lisp
Machine Learning: Transformers (MSc thesis, MScR thesis), Reinforcement Learning (chess project)
Computation: Virtual Envs (Docker, Anaconda), High Performance Computing (Slurm, Kubernetes)

Publications

Aryo Pradipta Gema, Dominik Grabarczyk, **Wolf De Wulf**, Piyush Borole, Javie Alfaro, Antonio, Pasquale Minervini, Antonio Vergari, and Ajitha Rajan (2024). “Knowledge Graph Embeddings in the Biomedical Domain: Are They Useful? A Look at Link Prediction, Rule Learning, and Downstream Polypharmacy Tasks”. In: *Bioinformatics Advances*.

Polina Turishcheva, Paul G. Fahey, Michaela Vystrčilová, Laura Hansel, Rachel Froebe, Kayla Ponder, Yongrong Qiu, Konstantin F. Willeke, Mohammad Bashiri, Ruslan Baikulov, Yu Zhu, Lei Ma, Shan Yu, Tiejun Huang, Bryan M. Li, **Wolf De Wulf**, Nina Kudryashova, Matthias H. Hennig, Nathalie L. Rochefort, Arno Onken, Eric Wang, Zhiwei Ding, Andreas S. Tolias, Fabian H. Sinz, and Alexander S Ecker (2024). “Retrospective for the Dynamic Sensorium Competition for predicting large-scale mouse primary visual cortex activity from videos”. In: *arXiv*.

Dieter Vandesande, **Wolf De Wulf**, and Bart Bogaerts (2022). “QMaxSATpb: A Certified MaxSAT Solver”. In: *Proceedings 16th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR)*. Lecture Notes in Computer Science. Springer.

Wolf De Wulf and Bart Bogaerts (2020). “LP2PB: Translating Answer Set Programs into Pseudo-Boolean Theories”. In: *Proceedings 36th International Conference on Logic Programming (ICLP)*.