

Martin Weyssow

Ph.D. Candidate at DIRO, Université de Montréal
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EDUCATION

Université de Montréal , Canada Ph.D., Computer Science Thesis topic: Continual learning and out-of-distribution generalization for language models of code Advisor: Prof. Houari Sahraoui GPA: 4.3/4.3	09/2020 - Present
University of Namur , Belgium MSc., Computer Science and Data Science graduated with <i>magna cum laude</i>	2018 - 2020
University of Namur , Belgium BSc., Computer Science, Minors in Mathematics graduated with <i>cum laude</i>	2015 - 2018

EXPERIENCE

SCIS, Singapore Management University <i>PhD Visiting Researcher</i> <ul style="list-style-type: none">Initiated a new international collaboration between the Université de Montréal and Singapore Management University (SMU).Wrote and obtained an NSERC Alliance International Catalyst Grant to fund the collaborative research project.Worked at the Software Analytics Research (SOAR) lab under the supervision of Prof. David Lo.	10/2022 - 01/2023
DIRO, Université de Montréal <i>Research intern</i> <ul style="list-style-type: none">Initiated a new international collaboration between the University of Namur and the Université de Montréal.Completed with success four advanced graduate courses at DIRO on topics related to machine learning and natural language processing.Worked on my master's thesis on the application of deep learning coupled with static analysis of programs to improve code recommendation systems.Defended the thesis at the University of Namur, for which I obtained a mention of excellence from the jury.	09/2019 - 09/2020
Data & Models Workshop <i>Participant</i> <ul style="list-style-type: none">Participant in a workshop about the role of artificial intelligence in model-driven engineering organized at McGill's Bellairs Research Institute (http://www.bellairs2020.ece.mcgill.ca/index.htm).Collaborated with renowned international researchers in the field of model-driven engineering.Participated in the design and writing of two academic papers published in a conference workshop and a journal.	02/2020

SCHOLARSHIPS & GRANTS

Canada NSERC Alliance International Catalyst Grant	CA\$25,000
FRQ Merit Scholarship for Foreign Students (PBEEE)	05/2022 - 09/2024
Google Scholarship for Excellence, DIRO	05/2021 - 05/2022
Scholarship for Excellence, DIRO	2021
Scholarship for Excellence, DIRO	2020
Research Scholarship, Mitacs Globalink Canada	01-05/2020

COMMUNITY SERVICES

IEEE/ACM ASE Conference – <i>Reviewer</i>	2022
ICLR 2022, DL4C Workshop – <i>Program Committee</i>	2022
SOSYM Journal AI-MDE Theme Issue – <i>Reviewer</i>	2021
IEEE SANER Conference – <i>Reviewer</i>	2021
ACM/IEEE MODELS Conference – <i>Student Volunteer</i>	2020
IEEE Transactions on Software Engineering – <i>Reviewer</i>	2020

STUDENTS

Aton Kamanda, MSc. at Université de Montréal <i>Neural interfaces for deep neural networks</i>	09/2021 -
Lucas Maes, MSc. at Université de Montréal <i>Self-supervised learning for code representation learning</i>	09/2021 -
Bastien Nicolas, MSc. at University of Namur <i>Learning from Code Flow Dependencies using Graph Neural Networks for Code</i>	01-06/2021

PUBLICATIONS

- M. Weyssow**, X. Zhou, K. Kim, D. Lo, & H. Sahraoui (2023)
On the Usage of Continual Learning for Out-of-Distribution Generalization in Pre-trained Languages Models of Code
under review
- J. A. H. López *, **M. Weyssow** *, J. S. Cuadrado, & H. Sahraoui (2023)
Assessing Syntax Understanding of Pre-trained Language Models of Code through Multilingual Probing
*equal contributions
under review
- J. A. H. López *, **M. Weyssow** *, J. S. Cuadrado, & H. Sahraoui (2022)
AST-Probe: Recovering abstract syntax trees from hidden representations of pre-trained language models
*equal contributions
37th IEEE/ACM International Conference on Automated Software Engineering (ASE 2022)
- M. Weyssow**, H. Sahraoui & B. Liu (2022)
Better Modeling the Programming World with Code Concept Graphs-augmented Multi-modal Learning
44th IEEE International Conference on Software Engineering, New Ideas and Emerging Results (ICSE-NIER 2022)
- M. Weyssow**, H. Sahraoui & E. Syriani (2021)
Recommending Metamodel Concepts during Modeling Activities with Pre-Trained Language Models
Software and Systems Modeling, theme issue on AI-enhanced Model-Driven Engineering
- Mussbacher, G., Combemale, B., Kienzle, J. et al. (2020)
Opportunities in intelligent modeling assistance
Software and Systems Modeling
- M. Weyssow**, H. Sahraoui, B. Vanderose & B. Frénay (2020)
Combining Code Embedding with Static Analysis for Function-Call Completion
arXiv preprint arXiv:2008.03731
- G. Mussbacher, B. Combemale, S. Abrahão, N. Bencomo, L. Burgueño, G. Engels, J. Kienzle, T. Kühn, S. Mosser, H. Sahraoui, **M. Weyssow** (2020)
Towards an Assessment Grid for Intelligent Modeling Assistance
2nd Workshop on Artificial Intelligence and Model-driven Engineering