Information GEODES, Software Engineering Research Lab Département d'Informatique et de Recherche Opérationnelle (DIRO) University of Montreal E-mail: martin.weysow®umontreal.ca Web: martin-wey.github.io Research Interests Deep learning for code, multimodal learning, continual learning, large language models, and recommender systems. Education University of Montreal Ph.D., Computer Science Fall 2020 - present Thesis topic: Multimodal and continual learning for code Advisor: Prof. Houari Sahraoui Research Internship Fall 2019 - Fall 2020 Advisor: Prof. Houari Sahraoui University of Namur, Belgium MSc., Computer Science and Data Science Thesis advisor: Prof. Houari Sahraoui Grade: 19/20 (highest grade) BSc., Computer Science, Minors Mathematics 2015 - 2018 Scholarships FRQ Merit Scholarship for Foreign Students (PBEEE) Scholarship for Excellence, DIRO Google Scholarship for Excellence, DIRO Scholarship	Contact	Affiliation:		
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IEEE Transactions on Software Engineering – <i>Reviewer</i> 2020		IEEE SANER Conference – Reviewer	2021	
		ACM/IEEE MODELS Conference – Student Volunteer	2020	
Data & Models Workshop – <i>Participant</i> 2020		IEEE Transactions on Software Engineering – Reviewer	2020	
		Data & Models Workshop – Participant	2020	

Participant of 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)

Teaching University of Namur

INFOB318 - Individual bachelor project, Project Supervisor	2020 - 2021
INFOB131 - Introduction to programmation, <i>Teaching Assistant</i>	Fall 2020

StudentsAton Kamanda (MSc) – Deep learning for codeFall 2021 -(co)-supervisionLucas Maes (MSc) – Deep reinforcement learning and roboticsFall 2021 -

Past students Bastien Nicolas (MSc.)

Spring 2021

Learning from Code Flow Dependencies using Graph Neural Networks for Code Refactoring

Lucas Maes (BSc.)

Fall 2020 - Spring 2021

Code Documentation Generation Plug-In Development using Pretrained

Language Models

Aton Kamanda (BSc.)

Fall 2020 - Spring 2021

Code Search Plug-In Development using Pretrained Language Models

Publications

J. A. H. López *, M. Weyssow *, J. S. Cuadrado, & H. Sahraoui (2022)

AST-Probe: Recovering abstract syntax trees from hidden representations of pretrained language models.

* equal contributions

arXiv preprint arXiv:2206.11719, under revision

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'22)

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