Nathan Cornille

Curriculum Vitae

Research

Papers

October 2024 — **Arxiv paper**, *Arxiv.*
End-to-end Planner Training for Language Modeling

July 2024 — **Conference paper**, *Conference on Language Modeling.*
Learning to Plan for Language Modeling from Unlabeled Data

November 2023 — **Journal paper**, *Entropy: Special Issue "Causality and Complex Systems".*
Causal Factor Disentanglement for Few-Shot Domain Adaptation in Video Prediction

February 2022 — **Journal paper**, *Frontiers in Artificial Intelligence.*
Critical Analysis of Deconfounded Pretraining to Improve Visio-Linguistic Models

Dissertations

Jan 2025 — **PhD thesis**, *KULeuven*, Leuven.
Representation Learning for Vision and Language

June 2019 — **Master thesis**, *KULeuven*, Leuven, 17/20.
Analysis and Improvement of Named Entity Recognition for Biomedical Articles

Presentations

Oct 2024 — **Poster presentation**, *Conference on Language Modeling*, Philadelphia.
Learning to Plan for Language Modeling from Unlabeled Data

May 2023 — **Oral and poster presentation**, *Colloquium on Fundamental Challenges on Causality*, Grenoble.
Investigating the Effect of Causal Mechanism Alignment on Transfer Learning for Few-Shot Video Prediction

November 2020 — **Poster and flashtalk**, *From Neuroscience to Artificially Intelligent Systems*, Virtual.
DIRT: Distributed Internal Regression Transformer

December 2019 — **Oral and poster presentation**, *3rd Human Brain Project Curriculum Workshop on Cognitive Systems*, Glasgow.
Improving Language Understanding in Machines through Anticipation

Education

Oct 2019– Jan 2025 — **PhD computer science**, *Language Intelligence & Information Retrieval lab, KULeuven*, Leuven.
Representation Learning, Causality, Natural Language Understanding, Neuromorphic Computing

2017–2019 — **Master computer science**, *KULeuven*, Leuven, 85.27% (Top 3% of 96 students).
Option Artificial Intelligence

Fall of 2018 — **Exchange semester**, *Tsinghua University*, Beijing, 92.33% - 3.8 GPA.

2014–2017 — **Bachelor engineering sciences**, *KULeuven*, Leuven, 79.22% (Top 10% of 326 students).
Option Mechanics - Computer Science

Working Experience

Teaching

2018-2021 — **Teaching Assistant**, *KULeuven*, Leuven.
Capita Selecta Artifical Intelligence (20204), Natural Language Processing (2021, 2022, 2023), Object-Oriented Programming (2019, 2020, 2021), Science Communication (2021), Methodology of Informatics (2018,2019)

2016 - 2018 — **Math tutor**, *Sagio vzw*, Leuven.

Industry

Summer 2019 — **Associate Consultant Intern**, *Bain & Company*, Brussels.
Working on a European pricing strategy for a large consumer-goods company

Summer 2018 — **Blockchain intern**, *IntellectEU*, New York City.
Doing research into methods for privacy in permissioned blockchains and automating financial message mapping

Summer 2017 — **Software developer**, *Irex Consulting*, Brussels.
Developing an Android application and a website.

Summer 2015 — **Fundraiser**, *ONG Conseil*, Antwerp.
Asking people in the street to become supporters for Oxfam Solidarity.

Languages

Dutch	Native	
English	Fluent	
French	Good	*Can hold conversations*
Spanish	Limited	*Limited understanding, speaking and writing (level A2-Waystage)*

Engagements

Board Of European Students of Technology — An organisation that provides complementary education abroad for technology students, as well as organising engineering and other competitions. I was the co-Main Organiser of the 2019 Summer Course, and was the treasurer in 2017-2018.