

Nathan Cornille

Curriculum Vitae

Summary

Computer Scientist (PhD) with deep expertise in AI, NLP, and representation learning. Combines strong analytic skills (backed by strong academic record) with effective communication and collaboration skills (backed by teaching experience and industry internships at a.o. Bain & Company). Eager to learn.

Working Experience

Academic Research

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

Teaching

2018-2024 **Teaching Assistant**, *KULeuven*, Leuven.
Capita Selecta Artificial Intelligence (2024), 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.

Research Output

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

Education

2017–2019 **Master computer science**, *KULeuven*, Leuven, Summa Cum Laude: 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, Magna Cum Laude: 79.22% (Top 10% of 326 students).
Option Mechanics - Computer Science

Technical Skills

Programming Languages	Python, Java, Bash
Libraries	PyTorch, Numpy, Pandas, Matplotlib, Lightning, slurm, scikit
Tools	Git, HPC usage, Excel, Latex

Languages

Dutch	Native	
English	Fluent	
French	Good	<i>Can hold conversations</i>
Spanish	Limited	<i>Level B1-Breakthrough</i>

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.