

# Nathan Cornille

## Curriculum Vitae

### Research

#### Papers

- 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](#)

#### Presentations

- 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

#### Dissertations

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

### Education

- 2019–current (planned 2023) **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
- 2008–2014 **Secondary education**, *Sint-Michielscollege Brasschaat*, Brasschaat, 88.7%.  
Option Ancient Greek - Mathematics

### Working Experience

#### Teaching

- 2018–2021 **Teaching Assistant**, *KULeuven*, Leuven.  
Natural Language Processing (2021, 2022), 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    | <i>Can hold conversations</i>  |
| Spanish | Limited | <i>Limited understanding, speaking and writing (level A2-Waystage)</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.