

# Victor DAVID

(Post – doctorate)

Google Scholar: <https://scholar.google.com/citations?hl=en&user=NSH2MjIAAAAJ>

Website: <https://vict0r-david.github.io/>

Github: <https://github.com/Vict0r-David>

## Professional Experience

---

### September 2021 – September 2022: Post-Doctorate (1 year)

**Title:** Representation of prosopographical data by knowledge graphs

**Laboratory:** Centre d'études et de recherche en informatique et communications (CEDRIC)

**Institution:** Conservatoire National des Arts et Métiers (CNAM) Paris

**Supervisors:** Raphaël Fournier-S'niehotta (Assistant Professor, CNAM Paris) and Nicolas Travers (Assistant Professor, Engineer School Léonard-de-Vinci in Paris)

### 2017 – Today: Teacher (5 years)

Different courses (AI, python programming, algorithms, ...) for different audiences (computer scientist, mathematician, non-scientist) at different levels (Bachelor to Master) in French but also in English.

### 2017 – 2021: PhD. (3 years and 10 months)

**Title of the Thesis:** Dealing with Similarity in Argumentation

**Laboratory:** Institut de Recherche en Informatique de Toulouse (IRIT)

**University:** Université Toulouse III – Paul Sabatier

**Thesis Director:** Leila Amgoud, Research Director, CNRS – IRIT

### 2016 – 2017: Internship Master 2 (6 months)

**Memory Subject:** Characterization of argumentative semantics based on rankings.

**Supervisors:** Sylvie Doutre (Associate Professor at University Toulouse I - IRIT), Philippe Besnard (Research Director CNRS - IRIT) and Dominique Longin (Researcher CNRS - IRIT)

**Note:** Publication of a paper at the ICTAI conference (International Conference on Tools with Artificial Intelligence)

### 2015 – 2016: Internship Master 1 (6 months)

**Memory Subject:** Study of automatic methods (in Python) that can extract pauses in aphasic people in spontaneous, continuous speech.

**Supervisors:** Julie Mauclair (Assistant Professor at the University Toulouse III - IRIT) and Halima Sahraoui (Assistant Professor at the University Toulouse II - Octogone-Lordat)

**Note:** Presentation of a poster at the JEP conference (Journée d'étude sur la Parole)

### 2014 – 2015: Internship Bachelor's degree (3 months)

**Memory Subject:** Integration (in Java) of new algorithmic functionalities in a research tool in AI, argumentation.

**Supervisor:** Marie-Christine Lagasque-Schiex (University Professor at Toulouse III – IRIT)

## Research Activities

---

### Topics of Research:

Artificial Intelligence, Decision-Making, Explainable Decision, Non-Monotonic Reasoning, Reasoning with Uncertain/ Incomplete/ Contradictory/ Temporal Data, Knowledge Representation, Argumentation, Propositional/ First-Order/ Many-Sorted Logic, Ontology, Similarity, Temporal Markov Logic Network, Knowledge Graph

### Publications:

- 6 publications (long papers in international conferences), with 2 A\* conferences (AAAI and KR).
- The order of authors in the papers is alphabetical and all publications can be downloaded from my website: <https://victor-david.github.io/Publications/publi.html>

#### 2021 – Title: **A General Setting for Gradual Semantics Dealing with Similarity**

Authors: Leila Amgoud, Victor David  
 Conference: 35<sup>th</sup> AAAI  
 Pages: 6185 – 6192

#### 2021 – Title: **Similarity Measures based on Compiled Arguments**

Authors: Leila Amgoud, Victor David  
 Conference: 16<sup>th</sup> ECSQARU  
 Pages: 32 - 44

#### 2020 – Title: **An Adjustment Function for Dealing with Similarities**

Authors: Leila Amgoud, Victor David  
 Conference: 8<sup>th</sup> COMMA  
 Pages: 79 - 90

#### 2019 – Title: **Similarity Measures Between Arguments Revisited**

Authors: Leila Amgoud, Victor David, Dragan Doder  
 Conference: 15<sup>th</sup> ECSQARU  
 Pages: 3 - 13

#### 2018 – Title: **Measuring Similarity between Logical Arguments**

Authors: Leila Amgoud, Victor David  
 Conference: 16<sup>th</sup> KR  
 Pages: 98 - 107

#### 2017 – Title: **Subsumption and Incompatibility between Principles in Ranking-Based Argumentation**

Authors: Philippe Besnard, Victor David, Sylvie Doutre, Dominique Longin  
 Conference: 29<sup>th</sup> ICTAI  
 Pages : 853 - 859

2022

Title: Parameterisation and Principles of Reasoning on Temporal Markov Logic Networks  
 Authors: Victor David, Raphaël Fournier-S'niehotta, Nicolas Travers  
 Conference:

Title: Similarity Measures between Many-Sorted Logical Arguments  
 Authors: Victor David, Jérôme Delobelle, Jean-Guy Mailly  
 Conference:

**Thesis:**

**Abstract:** We are interested in the integration of a new notion in argumentation systems: similarity. In particular, we have worked on the definition of good similarity measures between logical arguments, and we have proposed an extended framework for argumentation systems to take into account a similarity measure, especially in the evaluation of the strength of the arguments.

**Post-doctorate:**

**Abstract:** Funded by the ANR (national) Daphne project (multidisciplinary between computer science and history), the objective is to develop systems for the representation and analysis of uncertain, temporal and contradictory data (initially from knowledge graph and ontology). The aim will be to produce a reasoning tool that can, for example, infer or validate historical hypotheses according to a prosopographical database.

## University Course

---

**2017 – 2021: PhD.** in Computer Science from the University of Toulouse in France, specialising in Artificial Intelligence. (Due to a handicap contract, the thesis was completed in 3 years and 10 months).

**2016 – 2017: Master 2** in Computer Science at the University Toulouse III - Paul Sabatier, speciality Artificial Intelligence and Pattern Recognition (AIPR), **ranked 1/9**

**2015 – 2016: Master 1** in Computer Science at the University Toulouse III - Paul Sabatier, speciality Artificial Intelligence and Pattern Recognition (AIPR), **ranked 6/144** in general and **1/30** in AIPR

## Skills and Information

---

**Language:** French (native language) and English (B2 level)

**Programming languages:** LaTeX, Python, Cypher, Java, C, C++, Prolog

**Tools:** Neo4J, Matlab

**Personal Projects (in progress):**

- **Public:** Development of a software for optimising the cutting plan of pieces in a tree trunk (in Python, see Github).

**Teaching activities:**

- 62 hours of practical work during the 4 years of my thesis for Bachelor 1 and Master 1 (with 2 years in English)
- 8 hours of lectures/ directed work (in Master 1) during the first 3 years of the thesis then 23 hours of the 4th year (with 15h in Bachelor 2),
- During the post-doctorate: 36 hours of practical work to a non-scientific public (vulgarisation/ initiation to the basics of python programming) + 30 hours of lectures/directed work.

**Other responsibilities:**

2018 - 2021: Responsible of the PhD students of the ADRIA team at the IRIT laboratory in Toulouse.

Role: Relay between the PhD students and the team leaders.