JOSEPHINE DIK Ph.D. Student

josephine@logic.at
http://www.josephinedik.github.io/

RESEARCH INTERESTS
deontic logic, legal reasoning, answer set programming, first-order modal logic, judicial discretion, preference logic, description logic, artificial intelligence, paradoxes

EDUCATION

Ph.D. in Logic and Computer Science Austria, Vienna
Theory and Logic Group, Department of Computer Science 2022 - 2026 *(expected)*
- Advisor: Prof. Agata Ciabattoni
- Research area: Applications of Deontic Logic

Master in Logic Gothenburg, Sweden
University of Gothenburg 2020 - 2022
- Thesis: Proof Theory of Circular Description Logics
- Advisor: Prof. Bahareh Afshari

Bachelor in Liberal Arts & Science Amsterdam, the Netherlands
Amsterdam University College 2015 - 2018
- Track: Computer Science, and Mathematics
- Thesis: Infinite Time Turing Machines and Ordinal Turing Machines – Comparison and Analysis

Exchange Semester Hong Kong
Chinese University of Hong Kong Sep. 2017 - Jan. 2018

EMPLOYMENT

University Assistent | TU Wien | Vienna 2022-Present
Coach | Bit Academy | Amsterdam, the Netherlands 2020

- Coaching students in programming, explaining concepts and motivating the students.

Trainer | Lyceo | Amsterdam, the Netherlands 2020

- Trainer for secondary school students, where I worked on a wide variety of projects including home work guidance, tutoring and training for exams.

Software Developer | ING & Young Colfield | Amsterdam, the Netherlands 2018-2019

- Part of the Kafka Eventbus team of ING. This team maintains the internal Kafka Cluster and develops new features. The first 12 months of this project were part of an IT traineeship at Young Colfield. After that, I worked for ING internally.

AWARDS & GRANTS

- **Best student paper award**, PRIMA 2025
- **Conference Attendance Grant for female master's students**, TU Wien Informatics 2025
- **Runner up best paper award**, DEON 2023
- **Best Posters Award**, SPLogiC 2023

SKILLS

Languages: Dutch, English.

Programming: `Python`, `Answer Set Programming`, `MATLAB`, Java, JavaScript, HTML, CSS, Matlab, Pyret, C, Prolog

- *Certificates* Oracle Certified Associate Java SE 8 Programmer, Professional Scrum Master 1

ACADEMIC SERVICES

Organizing WiL Seminar Series
Reviewers for *AAAI 2025, DEON 2025, AAAI 2026*
Student Representative LogiCS@TUWien programme
Organizing Committee *DEON2025, MOSAIC2023*

<table>
<tr><td>SELECTED
TALKS</td><td>DEON 2025, Vienna, Austria
Title: New sources for deontics: The Mimamsa school of Sanskrit philosophy</td><td>2025</td></tr>
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- Together with Elisa Freschi

ICAIL 2025, *Chicago, USA*   2025
Title: *Judicial Discretion as Normative Reasoning: Deontic Characterization of Judicial Decision Making with Answer Set Programming.*

- Together with Réka Markovich

JURIX 2024, *Brno, Czech*   2025
Title: *Modeling Judicial Discretion with Nuanced Permissions.*

- Together with Réka Markovich

DEON 2023, *Trois-Rivieres, Canada*   2025
Title: *Disambiguating Permissions: A Contribution from Mimamsa.*

PUBLICATIONS

1. Agata Ciabattoni, **Josephine Dik,** Emiliano Lorini, Dominik Pichler, Dmitrii Rozplokhas. From Explicit Allowances to Defeasible Deontic Operators: A Modal View. In: *Proceedings of the 26th International Conference on Principles and Practice of Multi-Agent Systems (PRIMA 2025)*, December 2025.

2. **Josephine Dik.** Explaining Discretionary Judicial Decisions using Answer Set Programming. In: *Legal Knowledge and Information Systems (JURIX 2025)*, December 2025.

3. **Josephine Dik,** Réka Markovich. When Judges Go Wrong: Modeling Discretion and the Duty of Care (Extended Abstract). In: *Proceedings of the 17th International Conference on Deontic Logic and Normative Systems (DEON 2025)*, July 2025.

4. **Josephine Dik,** Dominik Pichler. Navigating Permission and Exceptions: A First-Order Perspective. In: *Proceedings of the 17th International Conference on Deontic Logic and Normative Systems (DEON 2025)*, July 2025.

5. **Josephine Dik,** Réka Markovich. Judicial Discretion as Normative Reasoning: Deontic Characterization of Judicial Decision Making with Answer Set Programming. In: *International Conference on AI and Law (ICAIL 2025)*, June 2025.

6. Agata Ciabattoni, **Josephine Dik,** Elisa Freschi. Mimamsa on 'better-not' permissions. In: *Journal of Philosophical Logic*, 2025.

7. **Josephine Dik,** Réka Markovich. Modeling Judicial Discretion with Nuanced Permissions. In: *Legal Knowledge and Information Systems (JURIX 2024)*, December 2024.

8. Agata Ciabattoni, **Josephine Dik,** Elisa Freschi. Disambiguating permission: A contribution from Mimamsa. In: *Proceedings of the 16th International Conference on Deontic Logic and Normative Systems (DEON 2023)*, July 2023.

STAYS ABROAD   **Visiting Réka Markovich** | University of Luxembourg   June, October-November 2024
Visiting Marcelo Coniglio | Universidade Estadual de Campina   February 2023

SUMMER
SCHOOLS   **SPLogiC** | Campinas, Brazil   2023
Proof Society Atumun School and Workshop. | Utrecht, Netherlands   2022
Logic for the AI Spring | Como, Italy   2022
Nordic Logic Summer School | Bergen, Norway   2022

VOLUNTEERING   **Event Coordinator** | Gota Studentkar   2022
Teacher Dutch Language for Adults | Het Claverhuis   2020
Buddy Exchange Students | Amsterdam University College   2018