Pietro Totis

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BIO

I am a 28 year old AI enthusiast, currently I am finalizing a 4 year-long PhD at the DTAI Lab on declarative languages and automated reasoning. At the DTAI Lab I have learned how to design, develop, execute and implement research projects that address relevant scientific problems. My work, independent or in a team, resulted in several research papers advancing the state of the art in my topics of interest.

PhD in Computer Science @ KU Leuven, BE (Nov. 2018 - ongoing)

Supervisors: Luc De Raedt, Jesse Davis, Angelika Kimmig
Thesis: "Automated Reasoning for Combinatorics Math Problems and Probabilistic Argumentation"

ACADEMIC EXPERIENCE

Selected Publications:

Journal of Artificial Intelligence Research: Lifted Reasoning for Combinatorial Counting[1] *P. Totis, J. Davis, L. De Raedt, A. Kimmig*

`Lifted Reasoning` `Declarative Languages`

ICLP 2022: Efficient Knowledge Compilation Beyond Weighted Model Counting. *R. Kiesel, P. Totis, A. Kimmig*

`Model Counting` `Probabilistic Logic Porgramming`

STAR-AI 2021: Stable Model Semantics in ProbLog and its Applications in Argumentation.[2] *P. Totis, A. Kimmig, L. De Raedt*

`Probabilistic Logic Porgramming` `Argumentation`

EMNLP 2021: Mapping probability word problems to executable representations. *S. Šuster, P. Fivez, P. Totis, A. Kimmig, J. Davis, L. De Raedt and W. Daelemans*

`NLP` `Declarative Languages`

Teaching:

Daily advisor of BSc and MSc theses: about sports analytics, data visualization, data mining, *2020-2022*

Teaching assistant: "Databases" (BSc), "Advanced Programming Languages in AI" (MSc), *2019-2022*

`SQL` `Constraint Programming` `MiniZinc`

CS EXPERIENCE

Languages: (Maintainer) ProbLog, (Daily use) Python, Answer Set Programming, Prolog, MiniZinc, (MSc experience) C, SQL, Haskell, Scala, R, Java, JavaScript, HTML.
Tools: (Daily use) Bash, (Past experience) TensorFlow, Apache Spark.
Other: Git, Hugo, data science and ML frameworks/algorithms.

EDUCATION

Computer Science: 110/110 e Lode (2018)

Master, Università degli Studi di Udine, IT
Thesis: "A Distributed ASP Solver for Stratified Programs"

Cognitive Systems: Erasmus (Sep.'17-Feb.'18)

Master, Potsdam Universität, DE

Computer Science: 110/110 e Lode (2016)

Bachelor, Università degli Studi di Udine, IT
Thesis: "Argumentation Systems"

LANGUAGES

- Italian (mother tongue)
- English C1 - 2018 IELTS certificate, score 8.0
- German B2 - studying C1 at CLT school

AWARDS

- Best CS student award by the University of Udine in both Bachelor and Master of CS.
- Scholarships "Cecilia Danieli" and from the Province of Udine for the distinctive results in high-school.

ACTIVITIES / INTERESTS

Photography, history, board games, video games.
Sports: basketball, cycling, hiking, table tennis, running.

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[1]Accepted, soon to be published
[2]Extension under revision at the Journal "Theory and Practice of Logic Programming"