



Philipp Christmann

Curriculum Vitae

I am a PhD student at the Max Planck Institute for Informatics. My research focus is on answering factoid user questions. Such questions may be of a complex nature, involving multiple entity mentions and constraints, or can be issued in a sequence of information needs within a conversation. During my PhD, the goal is to integrate heterogeneous information sources in a flexible framework, to enhance the answer coverage of conversational question answering systems. In my research, I aim to establish new ways of modelling relevant information, the conversational context and the answering process. My general research interests lie in the area of digital assistants, knowledge graphs, and machine learning.

Personal Information

Date of Birth 10 February 1997
Nationality German
Email pchristm@mpi-inf.mpg.de

Education

- 04/2021–now **PhD student in Computer Science**, *Max Planck Institute for Informatics and Saarland University, Saarbrücken, Germany.*
- 08/2019–03/2021 **Master in Computer Science**, *Saarland University, Germany.*
Grade: 1.1, Honours Degree.
- 10/2015–07/2019 **Bachelor in Computer Science**, *Saarland University, Germany.*
Grade: 2.3.
- 08/2007–06/2015 **Abitur**, *Christian von Mannlich Gymnasium, Homburg, Germany.*
Grade: 1.8.

Master's Thesis

Title *CLOCQ: Efficient Search Space Reduction for Complex Question Answering over Knowledge Bases*
Supervisors *Prof. Dr. Gerhard Weikum, Dr. Rishiraj Saha Roy*
Grade *1.0*

Bachelor's Thesis

Title *A Method and Benchmark for Conversational Question Answering over Knowledge Graphs*
Supervisors *Prof. Dr. Gerhard Weikum, Dr. Rishiraj Saha Roy*
Grade *1.0*

Publications

Z. Jia, P. Christmann, and G. Weikum. 2024. **Faithful Temporal Question Answering over Heterogeneous Sources**. In Proceedings of the ACM Web Conference 2024 (**WWW '24**), Singapore, May 13 - 17, 2024. *Research Track Long Paper*.

Z. Jia, P. Christmann, and G. Weikum. 2024. **TIQ: A Benchmark for Temporal Question Answering with Implicit Time Constraints**. In Companion Proceedings of the ACM Web Conference 2024 (**WWW '24 Companion**), Singapore, May 13 - 17, 2024.

P. Christmann, R. Saha Roy, and G. Weikum. 2024. **CompMix: A Benchmark for Heterogeneous Question Answering**. In Companion Proceedings of the ACM Web Conference 2024 (**WWW '24 Companion**), Singapore, May 13 - 17, 2024. *Resource Track Paper*.

P. Christmann, R. Saha Roy, and G. Weikum. 2023. **Explainable Conversational Question Answering over Heterogeneous Sources via Iterative Graph Neural Networks**. In Proceedings of the 46th International ACM SIGIR Conference on Research and Development in Information Retrieval (**SIGIR' 23**), Taipei, Taiwan, 23 - 27 July 2023. *Research Track Long Paper*.

P. Christmann, R. Saha Roy, and G. Weikum. 2023. **CLOCQ: A Toolkit for Fast and Easy Access to Knowledge Bases**. In Proceedings of the 20th Conference on Database Systems for Business, Technology and Web (**BTW' 23**), Dresden, Germany, 6 - 10 March 2023. *Short Paper*.

P. Christmann, R. Saha Roy, and G. Weikum. 2022. **Question Entity and Relation Linking to Knowledge Bases via CLOCQ**. In Joint Proceedings of SemREC 2022 and SMART 2022 (**SMART@ISWC '22**), Hangzhou, China, 27 October, 2022.

P. Christmann, R. Saha Roy, and G. Weikum. 2022. **Conversational Question Answering on Heterogeneous Sources**. In Proceedings of the 45th International ACM SIGIR Conference on Research and Development in Information Retrieval (**SIGIR' 22**), Madrid, Spain, 11 - 15 July 2022. *Research Track Long Paper*.

P. Christmann. 2022. **Explainable Conversational Question Answering over Heterogeneous Sources**. In Proceedings of the 45th International ACM SIGIR Conference on Research and Development in Information Retrieval (**SIGIR' 22**), Madrid, Spain, 11 - 15 July 2022. *Doctoral Consortium Paper*.

P. Christmann, R. Saha Roy, and G. Weikum. 2022. **Beyond NED: Fast and Effective Search Space Reduction for Complex Question Answering over Knowledge Bases**. In Proceedings of the 15th ACM International Conference on Web Search and Data Mining (**WSDM' 22**), Arizona, US, 21 - 25 February 2022. *Research Track Long Paper*.

P. Christmann, R. Saha Roy, A. Abujabal, J. Singh, and G. Weikum. 2019. **Look before you Hop: Conversational Question Answering over Knowledge Graphs Using Judicious Context Expansion**. In Proceedings of the 28th ACM International Conference on Information and Knowledge Management 2019 (**CIKM '19**), Beijing, China, 3 - 7 November 2019. *Research Track Long Paper*.

Recognitions

SIGIR Student Travel Grant for SIGIR 2022.

Outstanding PC Member Award at WSDM 2022.

SIGIR Registration Grant for WSDM 2022.

SIGIR Student Travel Grant for CIKM 2019.

Professional Experience

03/2022–now **Applied Science Internship**

Amazon, Alexa AI, Barcelona, Spain.

- Research project on retrieval-augmented generation with large language models (mentor: Svitlana Vakulenko, manager: Adrià de Gispert).

- 03/2022–now **System Admin**
D5, Max Planck Institute for Informatics, Saarbrücken, Germany.
 - Various activities related to the systems of the department, including managing websites, demos, accounts, hardware and similar.
- 07/2019–02/2021 **Student Research Assistant**
D5, Max Planck Institute for Informatics, Saarbrücken, Germany.
 - Setup and maintenance of question answering demos of the department.
- 03/2018–12/2020 **Student Assistant**
Clusteroffice, Cluster of Excellence (MMCI), Saarbrücken, Germany.
 - Development and maintenance of multiple websites and services that are used by the *Saarland Informatics Campus (SIC)*, such as an *application portal* for SIC internal positions, and a system for organizing the *Journalistenpreis Informatik*.
 - Organization of the web team of the Clusteroffice (since 05/2019).

Professional Activities

Invited talk at Search-oriented Conversational AI (SCAI) on *Conversational Question Answering on Heterogeneous Sources*, Madrid, 15 July 2022.

Invited talk at Amazon Alexa AI on *Conversational Question Answering on Heterogeneous Sources*, remote, 13 June 2022.

Reviewer for TOIS (2022, 2023).

Program committee member at

SIGIR 2024 (short & long paper tracks),

CIKM 2023 (applied research track),

SIGIR 2023 (short paper track),

SIGKDD 2023 (applied science track),

CCKS 2021 (applied science track),

CIKM 2022 (short paper track),

SIGKDD 2022 (applied science track),

WSDM 2022 (full paper track - among 21 outstanding PC members),

CIKM 2021 (short paper track),

CIKM 2020 (short paper track).

Skills

Advanced Python, PHP, HTML, SQL, L^AT_EX, Bash
 Intermediate Java, JavaScript, SPARQL, CSS
 Basic C, C++, R

Languages

German (Native)

English (Advanced, C1)

French (Basic)

Links

Web <https://people.mpi-inf.mpg.de/~pchristm/>
Google Scholar <https://scholar.google.de/citations?user=AS874sUAAAAJ>
GitHub <https://github.com/PhilippChr>
LinkedIn <https://www.linkedin.com/in/philipp-christmann-1577b2191>

References

Rishiraj Saha Roy

Senior Researcher

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Gerhard Weikum

Research Director and Professor

Max Planck Institute for Informatics, Saarbrücken, Germany
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Adrià de Gispert

Principal Scientist

Amazon, Barcelona, Spain

Svitlana Vakulenko

Machine Learning Scientist

Amazon, Barcelona, Spain

Kristina Scherbaum

General Manager

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