

Rémy DELANAUX

Ph.D. in Computer Science - ENSIMAG engineer

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I am a Ph.D. student since October 2016 at the LIRIS laboratory at the University Claude Bernard - Lyon 1 (France). I work in the Database team, for the Data Science research group under the supervision of Angela Bonifati, along with Romuald Thion (both also from LIRIS) and Marie-Christine Rousset (from the LIG in Grenoble, France). My main research themes are Linked Open Data and privacy concerns in RDF graphs.

Ph.D. research

Linked Data integration respectful of confidentiality

- Privacy concerns** Study of utility/privacy duality for sensitive data
- Define confidentiality in RDF graphs
 - Policies: modeling user constraints using SPARQL queries

- Graph databases** Anonymization operations on RDF graphs
- Query-based anonymization: user constraints and operations as queries
 - Deletion and replacement operations
 - Blank nodes and IRIs manipulation to ensure privacy

- Analysis of privacy possibilities on RDF graphs
- Declarative theoretical framework for anonymizing RDF graphs
 - Anonymization algorithms following this process
 - Matching user constraints with RDF structure

Research activity

Education

- October 2016 - *in progress* **Ph.D. thesis, LIRIS lab, Lyon (France), Linked Data integration respectful of confidentiality.**
Thesis supervised by **Angela Bonifati** (LIRIS), co-supervised by Romuald Thion (LIRIS) and Marie-Christine Rousset (LIG, Grenoble)
- February - August 2016 **End of studies project, National Institute of Informatics, Tôkyô (Japan), Analysis and aggregation of biological data for Linked Open Data.**
Supervised by **Hideaki Takeda**.
- Analysis of biological data modeling systems of the Web
 - Design of a data aggregation methodology
 - Creation of an RDF aggregation platform
 - Study of simple Linked Data visualization frameworks
 - Implementation using Java and Apache Jena for data processing and rewriting
- January - May 2015 **Introduction to Lab Research internship, INRIA Grenoble (France), Stability in communicating systems.**
Supervised by **Gwen Salaün**.
- Theoretical study of communication systems using LTS and their stability
 - Analysis of factors impacting the stability of such systems: buffer bounds, performance issues...
 - Structural analysis: experimenting on system subclasses and pattern detection algorithms
 - Technical implementation in Python using the CADP Toolbox

Other activities

- 2018 PVLDB proceeding subreviewer (Main reviewer: Angela Bonifati)
2017 ACM SIGMOD Conference subreviewer (Main reviewer: Angela Bonifati)

Publications

Articles

Rémy Delanaux, Angela Bonifati, Marie-Christine Rousset, and Romuald Thion. Query-based linked data anonymization. In *International Semantic Web Conference*, 2018.

Workshops

Angela Bonifati, **Rémy Delanaux**, Marie-Christine Rousset, and Romuald Thion. A declarative approach to linked data anonymization. In *3ème Journée EGC/IA Données personnelles, vie privée et éthique*, 2018.

Rémy Delanaux, Angela Bonifati, Marie-Christine Rousset, and Romuald Thion. Query-based linked data anonymization. In *APVP 2018 - 9ème Atelier sur la Protection de la Vie Privée*, 2018.

Rémy Delanaux. Towards a declarative framework for anonymizing linked data graphs. In *2017 PUF Franco-American Workshop on Cybersecurity*, 2017.

Tech Reports

Rémy Delanaux and Hideaki Takeda. Aggregation, unification and integration of biological datasets as Linked Open Data. Technical report, National Institute of Informatics, Tokyo (Japan), 2016. End of Studies project report.

Rémy Delanaux and Gwen Salaün. Stability of communicating systems. Technical report, INRIA Grenoble (France), 2015. Introduction to Lab Research project report. [French].

Grants and fundings

- 2016-2019 Auvergne-Rhône-Alpes regional Ph.D. funding - ARC6: ITC and Innovative Computer Usages
2015 MOU International Exchange Agreement grant from the National Institute of Informatics (Tôkyô, Japan)

Teaching activities

Undergraduate

IUT Lyon 1

- Introduction to JavaScript (2017-2019)
- Web APIs (2017-2019)
- Database modeling (2017-2019)
- Basics of Web programming (2017)
- Support classes in Java (2016)

Professional experience

- June - August 2015 **Internship in programming**, *VISEO Technologies (Grenoble, France)*, Add-on development for a sales forecasting software suite.
- Third-party add-ons implementation in a C# software suite
 - Apache Camel for integrating internal systems
 - R integration for a computing add-on
 - Various Java & C# programming experiences
- April - June 2013 **Internship in programming**, *I.U.T. of Metz*, Cellular automata simulation in Java.
- Theoretical study of cellular automata and modeling using Cayley graphs
 - Development of a Java simulating program using the MVC pattern

Education

- 2013–2016 **Diplôme d'Ingénieur (engineering degree)**, *ENSIMAG (Grenoble, France)*, Master's degree equivalent.
 Information System Engineering
 Engineering formation of IT and applied mathematics
- 2011–2013 **Computer science diploma (DUT)**, *IUT de Metz*, With honors.
 IT Analyst and programmer formation.
 Programming, O.S. and networking, database modeling / designing, project management
- 2011 **French scientific Baccalauréat**, *Lycée de la Communication (Metz)*.

Languages

English	Fluent – TOEIC : 970 (in 2013)	<i>Regular written practice</i>
German	Good reading, writing and speaking level	
Japanese	Good reading skills, basic writing level	<i>Learning in progress</i>

I.T. abilities

Software prog.	C, Ada, Java, Bash, VHDL Fundamentals in Python, C++, Assembly (MIPS)	O.S.	Regular use and fundamentals of UNIX (Ubuntu, Debian, CentOS) and Windows
Web (Front)	HTML5/CSS3, JavaScript basics	Web (Back)	PHP5 - Symfony2 basics
Databases	Designing and modeling, SQL (Oracle, MySQL)	Divers	UML - Video editing - Social networking - LaTeX - Office software

Hobbies and interests

Japan	Culture and civilization, japanese animation, manga, art
Music	Listening (a lot), practicing (guitar, keyboard)
Art, Media	Reading, Hi-Tech, General Knowledge, Research, Multimedia, TV/Radio, ...
Nonprofit	Active member of an association organizing events (Nijikai / Jonetsu) related to Japanese culture and media, from 2016 to 2018