

## Adrián Soto Suárez

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WORK EXPERIENCE      **Fintual, Chile,**  
Data Scientist, January 2021 – Present.

**Universidad Adolfo Ibáñez, Chile,**  
Assistant Professor, July 2020 – December 2021.

**PUC Chile,**  
Lecturer, August 2016 – 2020.  
Teaching assistant, 2013 – 2019.

**PUC Chile, CIWS and IMFD,**  
Research assistant, 2014 – present.

**Simula UC,**  
Software Developer, 2015.

EDUCATION      **PUC Chile,**  
PhD in Computer Science, March 2016 – January 2021.

- Supervisor: Prof. Juan L. Reutter.
- Thesis title: *Efficient processing of recursive and federated queries in SPARQL*.
- Research: semantic web, join algorithms and query languages.

**Faculty of Engineer, PUC Chile,**  
Software engineer, March 2011 - October 2018.

TEACHING EXPERIENCE      **UAI Chile, Faculty of Engineering and Sciences**  
**Postgraduate Courses**

- Lecturer for the “ING559 - Métodos de Aprendizaje de Máquinas para Data Science” course (Spring, 2020, 2021).
- Lecturer for the “TICS575 - Técnicas para Big Data” course (Autumn, 2021).
- Lecturer for the “TICS580 - Bootcamp Python & Bases de Datos Relacionales” course (Summer, 2021).

**Undergraduate Courses**

- Lecturer for the “TICS314 - Fundamentos de Ciencia de Datos” course (Spring 2021).

**Postgraduate Diploma**

- Lecturer for the “Aprendizaje Automático” course (August 2021).

## PUC Chile, School of Engineering

### Undergraduate Courses

- Lecturer for the “IIC2413 - Bases de Datos” course (Spring 2016, 2017, 2018, Autumn 2019, 2020).

### Postgraduate Diploma

- Lecturer for the “Teoría de Grafos para Big Data” course (Spring 2019, Winter 2020).

### Short Courses

- Teacher for a short course of Data Journalism (2017, 2018): I organised and was a lecturer of a one week course where journalists could learn some topics of data management and programming skills.
- Teacher for a short course of Web Scraping for Political Science (2019): I gave a lecture about web scrapping in a course of programming skills for political scientists.

### Ohters

- Organiser and teacher for the course of Java for School Student (2017, 2018).

### Teaching Assistant

- IIC2233 - Programación Avanzada (4 times).
- IIC1103 - Introducción a la Programación (3 times).
- IIC2413 - Bases de Datos (3 times).
- IIC2154 - Proyecto de Especialidad (2 times).
- IIC3413 - Implementación de Sistemas de Bases de Datos (2 times).
- IIC2143 - Ingeniería de Software.
- IIC2513 - Tecnología y Aplicaciones Web.
- IIC3242 - Complejidad Computacional.
- IIC3432 - Tópicos Avanzados en Bases de Datos.
- IIC3272 - Criptomonedas y Contratos Inteligentes.

### CAREER HIGHLIGHTS

“Premio excelencia docente, mejor profesor Part-Time del Departamento de Ciencia de la Computación”, PUC Chile 2017.

“Premio al profesor más inspirador del Departamento de Ciencia de la Computación”, PUC Chile 2019.

### JOURNAL PUBLICATIONS

Matthieu Mosser, Fernando Pieressa, Juan L. Reutter, A. Soto, Domagoj Vrgoč, *Querying APIs with SPARQL*, Accepted at the Information Systems Journal.

J. L. Reutter, A. Soto, D. Vrgoč, *Recursion in SPARQL*, Accepted at The Semantic Web Journal.

L. Libkin, J. L. Reutter, A. Soto, D. Vrgoč, *TriAL: A navigational algebra for RDF triplestores*, ACM Transactions on Databases Systems 43(1): 5:1-46 (2018).

### CONFERENCE PUBLICATIONS

Diego Arroyuelo, A. Hogan, G. Navarro, J. L. Reutter, J. Rojas-Ledesma, A. Soto, *Worst-case Optimal Graph Joins in Almost No Space* (SIGMOD 2021).

Aidan Hogan, J. L. Reutter, A. Soto, *In-Database Graph Analytics with Recursive SPARQL* (ISWC 2020).

Aidan Hogan, Cristian Riveros, Carlos Rojas, A. Soto, *A Worst-Case Optimal Join Algorithm for SPARQL* (ISWC 2019).

Matthieu Mosser, Fernando Pieressa, Juan L. Reutter, A. Soto, Domagoj Vrgoč, *Querying APIs with SPARQL: Language and Worst-Case Optimal Algorithms* (ESWC 2018).

Juan L. Reutter, A. Soto, Domagoj Vrgoč, *Recursion in SPARQL* (ISWC 2015).

WORKSHOPS AND DEMOS     Matthieu Mosser, Fernando Pieressa, Juan L. Reutter, A. Soto, Domagoj Vrgoč, *Querying APIs with SPARQL*, (AMW 2019).

Jaime Castro, Adrián Soto, *A Comparison between Cypher and Conjunctive Queries*, (AMW 2017).

Matias Junemann, Juan L. Reutter, Adrián Soto, Domagoj Vrgoč, *Incorporating API Data into SPARQL Query Answers*, (ISWC (Demos) 2016).

PROFESSIONAL SERVICES     Program committee member ESWC (2019, 2020, 2021, 2022).  
Program committee member EDBT 2022.  
Program committee member ISWC 2021. Subreviewer PODS 2020.  
Program committee member ECAI 2020.  
Publicity chair PODS 2018.

PROGRAMMING SKILLS     Programming Languages: Python, Java, C#, Julia, JavaScript, Scala, C, C++, Ruby.  
  
Data Science: Pandas, Scikit-Learn, Keras, PyTorch, Seaborn, Plotly, Spacy, Transformers (Python Library), Apache Spark.  
  
Web Development: Django, Flask, Express.  
  
Cloud Services: Heroku, Amazon S2, GC Datastore, GC BigQuery, GC Storage.  
  
Query Languages and Database Systems: SQL, SPARQL, Cypher, MongoDB.

REFERENCES     Juan L. Reutter  
School of Engineering, PUC Chile,  
Vicuna Mackenna 4860  
Edificio San Agustin, 4to piso  
Macul 7820436, Santiago, Chile  
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