

# Paul Leger, Ph. D. in Computer Science

Civil Engineering School  
Catholic University of the North  
Larrondo 1281, Of. 316, Coquimbo, Chile

Email: [pleger@gmail.com](mailto:pleger@gmail.com)  
Homepage: <http://pleger.cl>  
Pragmatics lab: <http://pragmatics-lab.com> (Director)  
LinkedIn: <http://cl.linkedin.com/in/plegerm>

## Personal

Name: Paul Leger  
Hometown: Coquimbo, Chile  
Nationality: Chilean



## Education

**Visiting Researcher.** Tokyo Institute of Technology, Japan, 2019 (6 months); Cauca University, Colombia, 2018 (2 months); Shibaura Institute of Technology, Japan, 2013-2014 (4-2 months); École des mines de Nantes, France, 2010 (2 months).

**Ph. D. in Computer Science,** University of Chile, 2006 - 2012.  
Subject: Opening Up Trace-Based Mechanisms.  
Advisor: Éric Tanter (<http://pleiad.cl/etanter>).

**Engineering degree in Computer Science,** University of La Serena, 1999 - 2005 (July).

**B.Sc. in Computing Science,** University of La Serena, 1999 - 2005 (April).

## Different Occupations

I have worked on four different aspects of my professional life:

- \* **As a manager,** General Chair and Chair of the International Conference of the Chilean Computer Science Society, the most important computer science event in Chile. Additionally, I am a coordinator of the computer science line in my academic line. In addition, I am the co-founder and director of the Pragmatics laboratory (<http://pragmatics-lab.com>), which focuses on Computer Science research and its applications.
- \* **As a Computer Science Engineer,** I have designed and developed software like programming language interpreters, JavaScript libraries that use novel paradigms like aspect/context-oriented programming, and agent-based model simulations for social networks. Regarding programming languages, I have experience in industrial languages like C, Java, JavaScript, Python, functional languages like Scheme, and aspect languages like AspectJ, AspectScript, and ContextJ.
- \* **As a researcher,** I have published papers in 15 indexed journals (JCR-WOS/Scopus), 9 conferences (SCOPUS), and 6 workshops (SCOPUS). For research activity, I have traveled to different countries like Germany, France, USA, Japan, and Spain.
- \* **As a professor,** I have been a lecturer in different courses and areas like software development and Technology Information related to Business. At least in two opportunities, I have selected or awarded as a "good" professor.

## Professional

**Mining Cerro Negro.** From Catholic University of the North, Consulting engineer, 2020.

**Autopista Central.** Consulting engineer, 2017.

**Regional Observatory (working market).** Software project manager, implementation of an information system that allows users to analyze working market in a region of Chile, 2016 - 2017.

**Autopista Central.** Consulting engineer, 2011.

**Center for Advanced Research in Arid Zones (CEAZA).** Research assistant, two tasks: a) using MM5 (mesoscale model) to simulate or predict mesoscale atmospheric circulation and b) applying artificial neural networks to group/classify rainfall scenarios (both tasks applied to a limited-area in Chile), 2002 - 2004.

**Viña Ocho Tierras.** Project Manager of Web Site, 2002.

## Software

**RAI-JS:** Context-Oriented Programming, which supports reactive activation interfaces.

**DeloreanJs:** A back-in-time debugger for JavaScript. This software is strongly developed with Felipe Ruiz (felipe.ruiz@alumnos.ucn.cl) and Guillermo Victorero (guillermo.victorero@alumnos.ucn.cl).

**SyncCC:** A library to address callback issues on JavaScript.

**AspectScript:** An aspect language for JavaScript.

**ESA-JS:** An Expressive Stateful Aspect Language (ESA) for JavaScript.

**WeCa:** A practical library to address causality issues on the Web.

## Academic Experience

### *Academic Services*

**Master Program Committee Member (x 2).** Committee member of different engineering masters.

**Management.** Representative, professor committee, and coordinator of undergraduate programs.

### *Scientific Services*

**Funded Projects (x 1).** Principal Investigator (Chile).

**Organizer of International Events (x 4).** JCC'20 (Chile), COP'20 (Germany), and MPSE'14/15 (USA).

**Editor and Reviewer of JCR Journals (x 16).** Editor (x 1) and reviewer (x 15).

**Chair of International Events (x 5).** JCC'20 (Chile), MPSE'14/15 (USA), SAC-SE'17 (Morocco), and BIONETICS'15 (USA).

**Program Committee Member (x 12).** SAC-SE (various countries), SBLP (Brazil), VISSOFT (Chile), and INFONOR (Chile).

**Academic Evaluator (x 4).** Research Project (x 2) and External Master Revisor (x 2).

**Invited Speaker at Universities (x 4).** USA, Peru, Colombia, and Chile.

## Lecturer

**Postgraduate (x 7).** Areas are Programming Languages, Software Engineering, and Management.

**Undergraduate (x 34).** Areas are Programming Languages, Software Engineering, and Management.

**Thesis Advising (x 23).** Postgraduate (x 3) and Undergraduate (x 20).

For more information about my teaching experience, please visit <http://pleger.cl/teaching>.

## Publications

My research profile IDs on *Web of Science* and *Scopus* are Q-6174-2017 and 36087550600.

**Indexed Journals.** 16 publications (JCR-WoS, Scopus, and LatIndex).

**Indexed Conferences.** 11 publications (SCOPUS).

**Indexed Workshops.** 6 publications (SCOPUS).

For detailed information about my publications, please visit <http://pleger.cl/research>.

## Awards & Distinctions

**The best of ourselves, JCC,** article for “the best of ourselves” on Chilean Computer Science Society, Chile, 2019.

**Funding for Visiting Researcher,** Alliance of Pacific (AGCI 2018) for a research stay (<https://alianzapacifico.net/becas-2/>), Colombia, 2018.

**Best working paper award,** AEMARK (<http://www.aemarkcongresos.com/congreso2015/es/premios>), Spain, 2015.

**Selected as the best professor for undergrad teaching,** Business School, Catholic University of the North, Chile, 2014 and 2017.

**In the press,** Online Chilean Press.

**Ph. D. funding,** Conicyt, Chile, 2007.

**Ph. D. funding,** Nic, Chile, 2006.

## References

**Éric Tanter.** Ph. D. in Computer Science. Full Professor. Computer Science Department (DCC), University of Chile, Chile (etanter@dcc.uchile.cl).

**Jorge Soto-Andrade.** Ph. D. in Mathematics Science. Full Professor. Mathematics Department. University of Chile, Chile (sotoandr@uchile.cl).

**Melitta Fiebig.** Ph. D. in Mathematics Science. Retired Full Professor. Mathematics Department. University of La Serena, Chile (mefiebig@userena.cl).