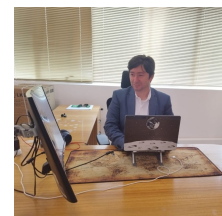# Paul Leger, Ph. D. in Computer Science & Software Engineer

Software Engineer & Associate Professor
Civil Engineering School
Catholic University of the North
Larrondo 1281, Coquimbo, Chile

Email: pleger@gmail.com
Homepage: https://pleger.cl
Pragmatics lab: https://pragmaticslab.com (Director)
LinkedIn: https://cl.linkedin.com/in/plegerm

Personal

Name:	Paul Leger
Hometown:	Coquimbo, Chile
Nationality:	Chilean
Summary:	
Scholar:	CrqCdsgAAAAJ
ORCID:	0000-0003-0969-5139
SCOPUS:	36087550600
DBLP:	https://dblp.org/pid/78/7936.html
Directors:	6 Positions
Indexed Journals:	36 Publications (31 WoS-JCR, 2 SCOPUS, and 3 Latindex)
Indexed Conferences:	18 Publications (SCOPUS)
Indexed Workshops:	7 Publications (SCOPUS)
Journal Editions:	6 Journals
Courses:	56 Courses (49 undergrad and 7 graduate)
Thesis Supervisions:	27 Theses (24 undergraduate and 3 graduate)
Software:	11 Developments (3 applications, 4 libraries, and 4 languages)

Education

Visiting Researcher, universities across the world:
- Centre for Development of Advanced Computing (C-DAC), India, 2024 (3 weeks).
- University of The Andes, Colombia, 2021 (3 weeks).
- Tokyo Institute of Technology, Japan, 2019 (6 months).
- University of Cauca, Colombia, 2018 (2 months).
- Shibaura Institute of Technology (x 2), Japan, 2013-2014 (4-2 months).
- École des mines de Nantes, France, 2010 (2 months).

Certifications:
- "Fundamentals of English Medium Instruction", University of Pennsylvania, 2023 (August).
- "Teaching University", Highest level, Catholic University of the North, 2024 (January).

Ph. D. in Computer Science, University of Chile, 2006 - 2012.
- Subject: Opening Up Trace-Based Mechanisms.
- Advisor: Éric Tanter (https://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).

Management Services

Director. Engineering School (https://eic.ucn.cl) at Universidad Católica del Norte (Chile). Management of a budget for a four-floor engineering school with 1,000+ students, guiding professors, and a teaching support unit, 2024 - 2026.

Director. Chilean Computer Science Society (SCCC), 2020 - 2022.

Deputy Director. Engineering Systems Doctorate (https://dsi-en.ucn.cl) at Universidad Católica del Norte (Chile), 2023 - 2024.

Head of Program Studies. 1) Civil Engineering in Computer Science and 2) Information Technology Engineering at the Universidad Católica del Norte (Chile), over 400 students, 2021 - 2022.

Pragmatics Lab. Director of an international research laboratory (http://pragmaticslab.com), where professors and students from Japan, Colombia, and Chile collaborate, 2019 - present.

Software Development Engineer

As I enjoy working on software engineering, I occasionally work as a freelancer doing software development and as a team manager in software projects:

Macrosoftware. Consulting software engineer, 2020 - present.

G-Tech. Project Manager, a startup mobile application, 2022.

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, where I used MM5 (mesoscale model) to simulate mesoscale atmospheric, 2002 - 2004.

Software Development for Research

My software projects are more related to creating complex software artifacts than developing traditional industrial software (*e.g.,* Inventory Management). Source: https://pleger.cl/software.

SBABM: An agent-based model to simulate the e-commerce behavior between agents and markets. https://github.com/pragmaticslaboratory/SBABM, 2023. [**APPLICATION**].

EMAjs: JavaScript library that implements an Expressive and Modular Activation mechanism for context-oriented programming. https://github.com/pragmaticslaboratory/EMAjs, 2022. [**LANGUAGE**].

CommerceSimulator: Java software to simulate buyers in e-commerce like Amazon, AliExpress, and Wish. This simulation considers the endorsements theory. Finally, this software can be used to execute different kinds of experiments. https://github.com/pleger/ABME-market, 2021. [**APPLICATION**].

DeloreanJS: A back-in-time debugger for JavaScript. This software is strongly developed by Felipe Ruiz (felipe.ruiz@alumnos.ucn.cl) and Guillermo Victorero (guillermo.victorero@alumnos.ucn.cl). You can try it on https://pleger.cl/sites/deloreanjs. https://github.com/pragmaticslaboratory/deloreanjs, 2019. [**APPLICATION**].

AspectScript: An aspect-oriented extension of JavaScript for expressive AOP, which integrates several state-of-the-art features related to higher-order programming and expressive scoping of aspects. https://pleiad.cl/aspectscript, 2010. [**LANGUAGE**].

FASOW: FASOW provides an Open Implementation for Agent-Based Models applied to e-WOM Marketing Campaigns. This software is strongly developed by Diego Nuñez (diego.nunez.trabajo@gmail.com). https://github.com/pragmaticslaboratory/fasow, 2024. [**LIBRARY**].

Matcher Cell: A JavaScript library to flexibly match patterns. You can try it on https://pragmaticslaboratory.github.io/matcher-cells-study-cases. https://github.com/pragmaticslaboratory/match-cell-base, 2021. [**LANGUAGE**].

RAI-JS: A JavaScript library for Context-Oriented Programming (COP), which supports reactive activation mechanisms. You can try it on https://pleger.cl/sites/raijs. https://github.com/pleger/rai-js, 2019. [**LIBRARY**].

Sync/CC (proof of concept): A library to address callback issues on JavaScript. You can try it on https://pleger.cl/synccc. https://github.com/pragmaticslaboratory/synnccc, 2019. [**LIBRARY**].

Academic Experience

Scientific Services

Funded Projects (*x 4*). Principal Researcher (ANID-2023), Principal Investigator (Chile), and Co-Researcher (Japanese government).

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

Editor and Reviewer of JCR Journals (*x 47*). Editor (*x 5*) and Reviewer (*x 42*).

Chair of International Events (*x 9*). ICSME'23 (Colombia), LMN'22 (Chile), JCC'20 (Chile), MPSE'14/15 (USA), SAC-SE'17 (Morocco), and BIONETICS'15 (USA).

Program Committee Member (*x 20*). VMIL (Singapore), ICSME (various countries), SAC-SE (various countries), SBLP (Brazil), COP (Germany), VISSOFT (Chile), INFONOR (Chile), etc.

Evaluator (*x 14*). Research Projects and (International) External Master Reviewers.

References

Hidehiko Masuhara. Ph. D. in Computer Science. Full Professor & Dean. Department of Mathematical and Computing Science. Tokyo Institute of Technology, Japan (masuhara@acm.org). Webpage: https://prg.is.titech.ac.jp/people/masuhara.

Éric Tanter. Ph. D. in Computer Science. Full Professor. Computer Science Department (DCC), University of Chile, Chile (etanter@dcc.uchile.cl). Webpage: https://pleiad.cl/people/etanter.

Alexandre Bergel. Ph. D. in Computer Science. Computer Scientist. Rational AI (https://relational.ai), Switzerland (alexandre.bergel@me.com). Webpage: https://bergel.eu.