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

Software Engineer & Associate Professor
Civil Engineering School
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Personal

Name:	Paul Leger
Hometown:	Coquimbo, Chile
Nationality:	Chilean
Research:	
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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 (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).

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.

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

Head of program study. Civil Engineering in Computer Science at 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: http://pleger.cl/software.

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

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.

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 http://pleger.cl/sites/deloreanjs. https://github.com/pragmaticslaboratory/deloreanjs, 2019.

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.

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.

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

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.

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*). SAC-SE (various countries), SBLP (Brazil), COP (Germany), VISSOFT (Chile), and INFONOR (Chile).

Evaluator (*x 13*). Research Projects and (International) External Master Reviewers.

Lecturer

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

Undegraduate (x 46). Areas are Programming Languages, Software Engineering, and Management.

Thesis Advising (x 3). Postgraduate (x 3) and Undergraduate (x 0).

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

Publications

My research profile ID on Google Scholar: https://scholar.google.cl/citations?user=CrqCdsgAAAAJ

Indexed Journals. 34 publications (28 JCR-WoS, 2 SCOPUS, 1 ESCI, and 3 LatIndex).

Indexed Conferences. 17 publications (SCOPUS).

Indexed Workshops. 7 publications (SCOPUS).

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

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.