Paul Leger, Ph. D. in Computer Science & SDE

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

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

Personal

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

Education

Visiting Researcher, universities across the world:
- 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).

Certification of "Fundamentals of English Medium Instruction", University of Pennsylvania, 2023 (August).

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

Sub-director Engineering Systems Doctorate, Coquimbo (Chile), https://dsi-en.ucn.cl, 2023 - present.

Project Manager. A freelance software development manager, mainly in agile methodologies, 2019 - present.

Recruiting and developing team. As director of the research laboratory, I am constantly looking for new good students to prepare them in different computer science projects. Likewise, I am often making new research groups of professors from different countries, 2018 - present.

Head of program study. Civil Engineering in Computer Science, over 400 students, 2021 - 2022.

Head of program study. Engineering in Information Technology, over 100 students, 2021 - 2022.

Pragmatics Lab. Director of an international research laboratory, 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 team leader in software projects:

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, two tasks: a) using MM5 (mesoscale model) to simulate mesoscale atmospheric circulation and b) applying artificial neural networks to classify rainfall scenarios (both tasks applied to a limited-area in Chile), 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/syncccc. https://github.com/pragmaticslaboratory/synnccc, 2019.

Academic Experience

Scientific Services

Funded Projects (x 2). Principal Investigator (Chile), 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 40*). Editor (*x 3*) and Reviewer (*x 37*).

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

Evaluator (*x 8*). Research Projects and (International) External Master Reviewers.

Lecturer

Postgraduate (x 6). Areas are Programming Languages, Software Engineering, and Management.

Undegraduate (x 41). Areas are Programming Languages, Software Engineering, and Management.

Thesis Advising (x 26). Postgraduate (x 2) and Undergraduate (x 24).

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. 29 publications (23 JCR-WoS, 2 SCOPUS, 1 ESCI, and 3 LatIndex).

Indexed Conferences. 13 publications (SCOPUS).

Indexed Workshops. 7 publications (SCOPUS).

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

Awards & Distinctions

The Best of Ourselves, two scientific articles have been selected on "The Best of Ourselves" on Chilean Computer Science Society (Chile), 2019 & 2022.

Best working paper award, AEMARK, Spain, 2015. http://www.aemarkcongresos.com/congreso2015/es/premios.

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

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.