# Paul Leger, Ph. D. in Computer Science

Associate Professor & Software Engineer
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## Personal

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| 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).

**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).

## Research Keywords

**Programming languages.** Modularity, abstractions, different approaches, and from the functional programming to novel programming approaches.

**Software engineering.** Developing tools to help programmers in software construction.

**Agent-based models.** The application of agent-based models to predict social behaviors in different environments (*e.g.,* social network sites like Twitter).

## Scientific Services

Manager (x 7)

**- Subdirector in Engineering Systems Doctorate**, Coquimbo (Chile), https://dsi-en.ucn.cl, 2023 - present.

**- Research Secretary at the Engineering School**, Coquimbo (Chile), http://eic.ucn.cl, 2023 - present.

**- Pragmatics Lab. Founder and director of the research laboratory in software development and simulations of agent-based models**, Virtual (Chile), http://pragmaticslab.com, 2018 - present.

**- Ph. D. coordinator of Engineering Systems Doctorate**, Coquimbo (Chile), https://dsi-en.ucn.cl, 2023.

**- Head of two undergraduate program studies at the Engineering School**, Coquimbo (Chile), http://eic.ucn.cl, 2021 - 2022.

**- Director on Chilean Computer Science Society (SCCC)**, Santiago (Chile), https://sccc.cl, 2020 - 2022.

**- Member of two Master Program at the UCN**, Coquimbo (Chile), http://www.ucn.cl, 2016 - 2018.

Funded Projects (*x 3*)

**- Pluralismo (ANID) 2023 (ANID-Chilean Government) "Evaluación de Estrategias para Diseminar Noticias Falsas Usando Inteligencia Artificial (Assessment of Strategies to Disseminate Fake News Using Artificial Intelligence)" (PLU230018)**, Santiago (Chile), https://anid.cl/concursos/xv-concurso-de-estudios-sobre-pluralismo-2023, 2023 - 2024, **NOTE:** Principal Researcher.

**- Fondef-VIU (ANID – Chile) "Análisis y Valorización de datos de comportamiento del usuario captados durante visitas a pilotos inmobilarios y utilizando realidad virtual"**, Santiago (Chile), https://www.anid.cl/investigacion-aplicada/valorizacion-de-la-investigacion-en-la-universidad-viu, 2019, **NOTE:** Principal Researcher.

**- KAKENHI-Project (Japanese government) "Software engineering and wireless sensor networks" (26330089)**, Tokyo (Japan), https://kaken.nii.ac.jp/search/?kw=26330089, 2014 - 2018, **NOTE:** Co-Researcher.

Organizer (*x 4*)

**- Jornadas chilenas de la computación**, Coquimbo (Chile), https://jcc2020.cl, 2020, **SCOPUS**.

**- Workshop on Context-Oriented Programming and Advanced Modularity (COP) - European Conference on Object-Oriented Programming (ECOOP)**, Virtual Event (Germany), https://2020.ecoop.org/home/COP-2020, 2020, **SCOPUS**.

**- Track on Modularization for Practical Software Engineering (MPSE) - International Conference on Bio-inspired Information and Communications Technologies**, New York (USA), http://bionetics.org, 2015, **SCOPUS**.

**- Track on Modularization for Practical Software Engineering (MPSE) - International Conference on Bio-inspired Information and Communications Technologies**, New York (USA), http://bionetics.org, 2014.

Journal Editor (*x 4*)

**- Editorial Member on Frontiers in Computer Science**, ISSN: 2624-9898, Frontiers, 2023 - present, **JCR-ISI**.

**- Editorial Member on Journal of Innovations in Digital Marketing**, ISSN: 2765-8341, Luminous Insights, 2021 - present.

**- Guest Editor on Information and Software Technology - Special Issue on Visualization applied to Software Engineering**, ISSN: 0950-5849, Elsevier, 2021, **JCR-ISI**.

**- Guest Editor on International Journal of Software Engineering and Knowledge Engineering**, ISSN: 1793-6403, World Scientific, 2015, **JCR-ISI**.

Journal Reviewer (*x 37*)

**- International Journal of Information Systems and Supply Chain Management**, ISSN: 1935-5726, IGI Global Publishing, 2023, **SCOPUS**.

**- Tsinghua Science and Technology (x 2)**, ISSN: 1007-0214, SciOpen, 2023, **JCR-ISI**.

**- IEEE Access (x 2)**, ISSN: 2169-3536, IEEE, 2022 - 2023, **JCR-ISI**.

**- Proceedings of the Institution of Mechanical Engineers - Part C: Journal of Mechanical Engineering Science (x 3)**, ISSN: 0954-4062, Sage, 2022 - 2023, **JCR-ISI**.

**- Applied Science (x 3)**, ISSN: 2076-3417, MDPI, 2022 - 2023, **JCR-ISI**.

**- Security and Communication Networks**, ISSN: 1939-0122, Hindawi, 2022, **JCR-ISI**.

**- Informatics for Health and Social Care**, ISSN: 0098-3063, IEEE, 2022, **JCR-ISI**.

**- Complexity (x 2)**, ISSN: 1076-2787, Hindawi, 2022, **JCR-ISI**.

**- Transactions on Consumer Electronics**, ISSN: 0098-3063, IEEE, 2022, **JCR-ISI**.

**- Education Research International**, ISSN: 2090-4002, Hindawi, 2022, **SCOPUS**.

**- International Journal of Computer Games Technology**, ISSN: 1687-7047, Hindawi, 2022, **SCOPUS**.

**- Journal of Simulation (x 2)**, ISSN: 1747-7778, Tandfoline, 2019 - 2022, **JCR-ISI**.

**- IEEE Latin America Transactions (x 8)**, ISSN: 1548-0992, IEEE, 2018 - 2022, **JCR-ISI**.

**- Ingeniería y Competitividad**, ISSN: 0123-3033, University of the Valley, 2021, **SCIELO-COLOMBIA**.

**- Journal of Computer Languages (x 2)**, ISSN: 2590-1184, Elsevier, 2020, **JCR-ISI**.

**- Soft Computing**, ISSN: 1432-7643, Springer, 2019, **JCR-ISI**.

**- Ingeniare (x 2)**, ISSN: 0718-3305, Universidad de Tarapacá, 2018, **SCOPUS**.

**- Formación Universitaria**, ISSN: 0718-5006, CIT, 2018, **SCOPUS**.

**- Spanish Journal of Marketing**, ISSN: 2444-9709, Emerald, 2017, **SCOPUS**.

**- Journal of Technology Management & Innovation**, ISSN: 0718-2724, Universidad Alberto Hurtado, 2015, **SCOPUS**.

Chair (*x 9*)

**- Industry Track on IEEE International Conference on Software Maintenance and Evolution (ICSME)**, Bogota (Colombia), https://cyprusconferences.org/icsme2022, 2023, **SCOPUS**, **NOTE:** Core-Rank A.

**- Lo Mejor de lo Nuestro (LMN) ("the best of ourselves")**, Santiago (Chile, https://jcc2022.ing.puc.cl/lmn2022, 2022, **SCOPUS**.

**- International Conference of the Chilean Computer Science Society (SCCC)**, Coquimbo (Chile), https://jcc2021.cl, 2021, **SCOPUS**, **NOTE:** The most important computer science conference in Chile.

**- Context-Oriented Programming and Avanced Modularity (COP)**, Virtual Event (Germany), https://2020.ecoop.org, 2020, **SCOPUS**.

**- Session Chair on Track on Software Engineering (SE)-ACM Symposium on Applied Computing (SAC)**, Marrakech (Morocco), http://selab.uos.ac.kr/sacse17, 2017, **SCOPUS**.

**- Track on Modularization for Practical Software Engineering (MPSE) - International Conference on Bio-inspired Information and Communications Technologies (x 3)**, Boston (USA), http://bionetics.org, 2014 - 2016, **SCOPUS.**.

**- Publicity Chair on 9th International Conference on Bio-inspired Information and Communications Technologies**, New York (United States), http://bionetics.org, 2015, **SCOPUS**.

Program Committee Member (*x 15*)

**- Brazilian Symposium on Programming Languages (SBLP)**, Mato Grosso do Sul (Brazil), https://cbsoft2023.ufms.br/en-US/sblp, 2023, **SCOPUS**.

**- Brazilian Symposium on Programming Languages (SBLP)**, Virtual Event (Brazil), https://cbsoft2022.facom.ufu.br/sblp.php, 2022, **SCOPUS**.

**- Context-Oriented Programming and Advanced Modularity (COP)**, Berlin(Germany), https://2022.ecoop.org/home/COP-2022, 2022, **SCOPUS**.

**- Brazilian Symposium on Programming Languages (SBLP)**, Natal (Brazil), http://cbsoft2020.imd.ufrn.br/sblp.php, 2020, **SCOPUS**.

**- Congreso Internacional de Computación e Informática del Norte de Chile (INFONOR) (x 6)**, Norte de Chile (Chile), https://infonorchile.cl, 2013 - 2019.

**- ACM Symposium on Applied Computing (SAC) - Track on Software Engineering (SE)**, Pau (France), https://www.sigapp.org/sac/sac2018, 2018, **SCOPUS**.

**- ACM Symposium on Applied Computing (SAC) - Track on Software Engineering (SE)**, Marrakech (Morocco), https://www.sigapp.org/sac/sac2017, 2017, **SCOPUS**.

**- ACM Symposium on Applied Computing (SAC) - Track on Software Engineering (SE)**, Pisa (Italy), https://www.sigapp.org/sac/sac2016, 2016, **SCOPUS**.

**- ACM Symposium on Applied Computing (SAC) - Track on Software Engineering (SE)**, Salamanca (Spain), https://www.sigapp.org/sac/sac2015, 2015, **SCOPUS**.

**- New Ideas or Emerging Results (NIER) and Tool Demo (TD) - Third IEEE Working Conference on Software Visualization (VISSOFT)**, Santiago (Chile), http://vissoft.dcc.uchile.cl, 2015.

Evaluator (*x 9*)

**- Evaluator of Fondef-IDeA Projects**, ANID (Chile), https://anid.cl/concursos/concurso-idea-id-tecnologias-avanzadas-2024, 2023.

**- Evaluator of Exploration Projects**, ANID (Chile), https://www.anid.cl/proyectos-de-investigacion/proyectos-de-exploracion, 2022.

**- External Reviewer of Master Thesis: "Points-to Analysis for Context-Oriented JavaScript Programs"**, University of the Andes (Colombia), https://uniandes.edu.co/en, 2022.

**- External Reviewer of Master Thesis: "Ad Hoc Systems Management and Specification with Distributed Petri Nets"**, University of the Andes (Colombia), https://uniandes.edu.co/en, 2021.

**- External Reviewer of Master Thesis: "Analysis of WebRTC signaling"**, University of the Andes (Colombia), https://uniandes.edu.co/en, 2021.

**- Research Project**, Pontificia Universidad Católica de Valparaíso (Chile), http://www.pucv.cl, 2018.

**- External Reviewer of Master Thesis: "Verificación progresiva de programas en Dafny"**, Pontificia Universidad Católica de Valparaíso (Chile), http://pucv.cl, 2018.

**- External Reviewer of Master Thesis: "Discovering Memory Optimization Opportunities by Analyzing Shareable Objects"**, University of Chile (Chile), http://www.uchile.cl, 2017.

**- Evaluator on Short Internship Projects (MEC)**, ANID (Chile), http://www.conicyt.cl/pai, 2014.

# Academic Experience

*Lecturer*

Postgraduate (*x 6*)

**Thesis Proposal**, Magister Program, Catholic University of the North, 2019 - 2021.

**Advanced Topics in Management of Information Technology II**, Magister Program, Catholic University of the North, 2020.

**Advanced Topics in Management of Information Technology I**, Magister Program, Catholic University of the North, 2019.

**Research Methodology**, Magister Program, Catholic University of the North, 2018.

**Design Patterns**, Computer and Telecommunication Engineering, Diego Portales University, 2011.

**Objects and Aspects**, Computer and Telecommunication Engineering, Diego Portales University, 2010.

Undergraduate (*x 41*)

**Programming Languages (*x* 4)**, Computer Civil Engineering, Catholic University of the North, 2021 - 2023.

**Agent-Based Model for Social Simulation (Guided Research)**, Computer Science Engineering, Catholic University of the North, 2021.

**Data Structure (*x* 5)**, Computer Civil Engineering, Catholic University of the North, 2018 - 2021.

**Algorithms and Programming**, Information and Information Technology, Catholic University of the North, 2020.

**Applied Science Project**, Computer Civil Engineering, Catholic University of the North, 2020.

**Data Science Application to the use of Programming Languages (Guided Research)**, Computer Science Engineering, Catholic University of the North, 2020.

**Introduction to Research in Computer Science**, Computer Science Engineering, Catholic University of the North, 2019.

**Management Information System Development**, Information and Management Control, Catholic University of the North, 2018.

**Communication Elements (*x* 5)**, Information and Management Control, Catholic University of the North, 2014 - 2018.

**DataBase (*x* 4)**, Information and Management Control, Catholic University of the North, 2013 - 2017.

**Process Modelling (*x* 3)**, Information and Management Control, Catholic University of the North, 2013 - 2016.

**Programming (*x* 3)**, Information and Management Control, Catholic University of the North, 2013 - 2016.

**Programming and Database**, Business Management, Catholic University of the North, 2012.

**Programming Languages and Paradigms**, Computer Civil Engineer, University of Talca, 2012.

**Programming (*x* 5)**, Industrial Civil Engineering, Diego Portales University, 2010 - 2012.

**Advanced Programming**, Industrial Civil Engineering, Diego Portales University, 2010.

**Computing 1 (*x* 3)**, Computer and Telecommunication Engineering, Diego Portales University, 2009.

Thesis Advising (*x* 26)

**Postgraduate (*x* 2)**, Catholic University of the North, 2017 - 2021.

**Undergrad (*x* 24)**, Catholic University of the North, 2013 - 2021.

## *Evaluations as Professor*

**Catholic University of the North** (Three consecutive times) Best professor evaluation for undergrad teaching in School of Business Studies, 2012 - 2014.

**Diego Portales University** (Spanish) "Paul dictó varios cursos (incluso cursos de postgrado) en nuestra carrera, él mostró cercanía con los alumnos y capacidad suficiente para motivarlos a interiorizarse en la materia", Jonathan Frez (jonathan.frez@udp.cl), Teaching Management, of School of Computer Science and Telecommunications Engineer telecommunications.

**University of Talca** (Spanish) "Vistos los resultados de la encuesta, el prof. Leger obtiene puntaje por sobre el promedio del Departamento y de la Facultad en cada uno de los ítems de la encuesta...". Ruth Garrido (rgarrido@utalca.cl), Head of School of Computer Science Engineer.

## Publications

My research profile IDs are *ORCID* (0000-0003-0969-5139), *Web of Science* (Q-6174-2017), and *Scopus* (36087550600).

**NOTE**: For conferences/workshops, I use the CORE ranking, which belongs **CO**mputing **RE**search and Education Association of Austral-asia (near to the publication year). CORE is available on http://portal.core.edu.au/conf-ranks.

*Journals* (Indexed)

Leger, Paul, Alexandre Bergel, Juan Pablo Sandoval Alcocer, and Leonel Merino (Mar. 2023). "Introduction to Special Issue on Visualization Applied to Software Engineering". In: *Information and Software Technology* 155, p. 107118. DOI: 10.1016/j.infsof.2022.107118. **JCR-ISI. A journal edition**.

Leger, Paul, Nicolás Cardozo, and Hidehiko Masuhara (Apr. 2023a). "An Expressive and Modular Layer Activation Mechanism for Context-Oriented Programming". In: *Information and Software Technology* 156, p. 107132. DOI: 10.1016/j.infsof.2022.107132. **JCR-ISI**.

Leger, Paul, Felipe Ruiz, Nicolás Cardozo, and Hiroaki Fukuda (Feb. 2023). "Benefits, Challenges, and Usability Evaluation of DeloreanJS: A Back-in-Time Debugger for JavaScript". In: *PeerJ Computer Science* 9, e1238. DOI: 10.7717/peerj-cs.1238. **JCR-ISI**.

Leger, Paul, Felipe Ruiz, Nicolás Sepúlveda, Ismael Figueroa, and Nicolás Cardozo (Oct. 2023). "The Stackage Repository: An Exploratory Study of its Evolution". In: *ArXiv e-prints*. DOI: abs/2310.10887. arXiv: submit/5150423 [cs.SE]. **Submitted - Under review**.

López, Manuela, Carmen Hidalgo-Alcázar, and Paul Leger (May 2023). "The Effect of Message Repetition on Information Diffusion on Twitter: An Agent-Based Approach". In: *IEEE Transactions on Professional Communication*, pp. 150–169. DOI: 10.1109/TPC.2023.3260449. **JCR-ISI**.

Salinas, Matias, Paul Leger, Hiroaki Fukuda, Nicolás Cardozo, Vannessa Duarte, and Ismael Figueroa (Jan. 2023). "Evaluations of Integrated Programming Environment for First-Year Students in Computer Engineering". In: *Journal of Universal Computer Science* 29.1, pp. 73–98. DOI: 10.3897/jucs.81329. **JCR-ISI**.

Manzano, Carlos, Claudio Meneses, Paul Leger, and Hiroaki Fukuda (Apr. 2022). "An Empirical Evaluation of Supervised Learning Methods for Network Malware Identification Based on Feature Selection". In: *Complexity* 2022, p. 18. DOI: 10.1155/2022/6760920. **JCR-ISI**.

Pizarro, Vicky, Paul Leger, Carmen Hidalgo-Alcázar, and Ismael Figueroa (Jan. 2022). "ABM RoutePlanner: An Agent-Based Model Simulation for Suggesting Preference-Based Routes in Spain". In: *Journal of Simulation* 17.4, pp. 444–461. DOI: 10.1080/17477778.2022.2027826. **JCR-ISI**.

Sosa, Juan Sebastian, Paul Leger, Hiroaki Fukuda, and Nicolás Cardozo (July 2022). "Ad Hoc Systems Management and Specification with Distributed Petri Nets". In: *Journal of Parallel and Distributed Computing* 169, pp. 117–129. DOI: 10.1016/j.jpdc.2022.06.015. **JCR-ISI. NOTE: Selected in "the best of ourselves" on JCC-2022 (main event in Chile)**.

Terán, Oswaldo, Paul Leger, and Manuela López (Mar. 2022). "Modeling and Simulating Chinese Cross-border e-Commerce: An Agent-Based Simulation Approach". In: *Journal of Simulation* 17.6, pp. 1–18. DOI: 10.1080/17477778.2022.2043791. **JCR-ISI**.

Camacho, Marta Cecilia, Francisco Álvarez, César Collazos, Paul Leger, Julián Bermúdez, and Julio Ariel Hurtado (June 2021). "A Collaborative Method for Scoping Software Product Lines: a Case Study in a Small Software Company". In: *Applied Sciences - Basel* 11.15. DOI: 10.3390/app11156820. **JCR-ISI**.

Duarte, Vannessa, Paul Leger, Sergio Contreras, and Hiroaki Fukuda (June 2021). "Using Artificial Neural Network to Detect Fetal Alcohol Spectrum Disorder in Children". In: *Applied Sciences - Basel* 11.13. DOI: 10.3390/app11135961. **JCR-ISI**.

Figueroa, Ismael, Paul Leger, and Hiroaki Fukuda (Jan. 2021). "Which Monads Haskell Developers Use: An Exploratory Study". In: *Science of Computer Programming* 201, p. 102523. DOI: 10.1016/j.scico.2020.102523. **JCR-ISI**.

Fukuda, Hiroaki, Ryota Gunji, Tadahiro Hasegawa, Paul Leger, and Ismael Figueroa (Feb. 2021). "DSSM: Distributed Streaming data Sharing Manager". In: *Sensors* 21.4, pp. 1–15. DOI: 10.3390/s21041344. **JCR-ISI**.

Leger, Paul, Hiroaki Fukuda, and Ismael Figueroa (Sept. 2021). "Continuations and Aspects to Tame Callback Hell on the Web". In: *Journal of Universal Computer Science* 27.9, pp. 955–978. DOI: 10.3897/jucs.72205. **JCR-ISI**.

Aguad, Yaria, Natalia Araya, Javiera Elías, Carmen Hidalgo-Alcázar, and Paul Leger (Dec. 2020). "Impacto del Etiquetado Nutricional en el Comportamiento de los Consumidores de la IV Región, Chile". In: *Revista de Investigación Aplicada en Ciencias Empresariales (RIACE)* 9.1, pp. 7–26. DOI: 10.22370/riace.2020.9.1.2596. **LATINDEX**.

Gálvez, Mará, Paullette Salinas, Camilo San-Martín, Paul Leger, and Carmen Hidalgo-Alcázar (Dec. 2020). "Caso de Estudio Sobre la Efectividad en la Utilización de Facebook en la Venta de Productos y Servi-

cios en Empresas de la Región de Coquimbo". In: *Revista de Investigación Aplicada en Ciencias Empresariales (RIACE)* 9.1, pp. 27–48. DOI: 10.22370/riace.2020.9.1.2597. **LATINDEX**.

Araya, Natalia, Paul Leger, and Manuela López (Apr. 2019). "Whom do I Choose to Diffuse Information on Twitter? An Agent-Based Model Approach". In: *IEEE Latin America Transactions* 17.4, pp. 677–683. DOI: 10.1109/TLA.2019.8891933. **JCR-ISI**.

Figueroa, Ismael, Cristhy Jiménez, Hector Allende-Cid, and Paul Leger (July 2019). "Developing Usability Heuristics with PROMETHEUS: A Case Study in Virtual Learning Environments". In: *Computer Standards & Interfaces* 65, pp. 132–142. DOI: 10.1016/j.csi.2019.03.003. **JCR-ISI**.

Rojas, Felipe, Andrea Fernández, Paulina Gutierrez, and Paul Leger (Dec. 2019). "Identificando Brechas de Uso de Sistemas de Información (SIA) para Micro, Pequeñas y Medianas Empresas en La Serena y Coquimbo". In: *Revista de Investigación Aplicada en Ciencias Empresariales (RIACE)* 8.1, pp. 77–113. DOI: 10.22370/riace.2019.8.1.2073. **LATINDEX**.

Fukuda, Hiroaki, Paul Leger, and Namiki Keita (Aug. 2016). "CMSN: An Efficient and Effective Agent Lookup for Mobile Agent Middleware". In: *Journal of Universal Computer Science* 22.8, pp. 1072–1096. DOI: 10.3217/jucs-022-08-1072. **JCR-ISI**.

Leger, Paul, Manuela López, Carmen Hildago-Alcázar, and Hiroaki Fukuda (May 2016). "An Open Agent-Based Model to Simulate the Effect of WOM Marketing Campaigns". In: *EAI Endorsed Transactions on Smart Cities* 1.4. ISSN: 2518-3893. DOI: 10.4108/eai.3-12-2015.2262533.

Rocha, Wiliam, Hiroaki Fukuda, and Paul Leger (May 2016). "Modular Asynchronous Web Programming: Advantages and Challenges". In: *EAI Endorsed Transactions on Collaborative Computing* 2.8. ISSN: 2312-8623. DOI: 10.4108/eai.3-12-2015.2262472.

Vidal, Cristian, David Benavides, Paul Leger, José Galindo, and Hiroki Fukuda (May 2016). "Mixing of Join Point Interfaces and Feature-Oriented Programming for Modular Software Product Line". In: *EAI Endorsed Transactions on Scalable Information Systems* 3.10. DOI: 10.4108/eai.3-12-2015.2262534. **ESCI**.

Fukuda, Hiroaki and Paul Leger (June 2015d). "SyncAS: A Virtual Block Approach to Tame Asynchronous Programming". In: *International Journal of Software Engineering and Knowledge Engineering (IJSEKE)* 25.5, pp. 887–907. DOI: 10.1142/S0218194015400252. **JCR-ISI**.

Leger, Paul, Éric Tanter, and Hiroaki Fukuda (May 2015). "An Expressive Stateful Aspect Language". In: *Science of Computer Programming* 102.0, pp. 108–141. DOI: 10.1016/j.scico.2015.02.001. **JCR-ISI**.

Liu, Shih-Hsi, Junichi Suzuki, Paul Leger, Hiroaki Fukuda, and Marjan Mernik (June 2015). "Featured Topic Issue - Emerging Synergies of Artificial Intelligence and Software Engineering". In: *International Journal of Software Engineering and Knowledge Engineering (IJSEKE)* 25.5, pp. 803–805. DOI: 10.1142/S0218194015020040. **JCR-ISI. A journal edition**.

Leger, Paul, Grecia Gálvez, Lino Cubillos, Diego Cosmelli, Milton Inostroza, Éric Tanter, Gina Luci, and Jorge Soto Andrade (Mar. 2014). "ECOCAM, un sistema computacional adaptable al contexto para promover estrategias de cálculo mental: características de su diseño y resultados preliminares". In: *Revista Latinoamericana de Investigación en Matemática Educativa* 17.1, pp. 33–58. DOI: 10.12802/relime.13.1712. **JCR-ISI**.

Ramírez, Pablo, Paul Leger, and Andres Vallone (July 2014). "Un Modelo Flexible para la Simulación de Distribución de Ciudades". In: *Revista chilena de ingeniería* 22.3, pp. 363–373. DOI: 10.4067/S0718-33052014000300007. **SCOPUS**.

Ramírez, Patricio, Paul Leger, and Carolina Fuentes (Nov. 2014). "Los Programas de Ingeniería en Sistemas de Información y Control de Gestión en Chile: Un Análisis Cuantitativo". In: *Formación Universitaria* 7.2, pp. 21–28. DOI: 10.4067/S0718-50062014000200004. **SCOPUS**.

Leger, Paul, Éric Tanter, and Rémi Douence (Sept. 2013). "Modular and Flexible Causality Control on the Web". In: *Science of Computer Programming* 78.9, pp. 1538–1558. DOI: 10.1016/j.scico.2012.11.005. **JCR-ISI**.

Gálvez, Grecia, Diego Cosmelli, Lino Cubillos, Paul Leger, Arturo Mena, Éric Tanter, Ximena Flores, Gina Luci, Soledad Montoya, and Jorge Soto Andrade (Mar. 2011). "Estrategias Cognitivas para el Cálculo Mental". In: *Revista Latinoamericana de Investigación en Matemática Educativa* 14.1, pp. 9–40. **JCR-ISI**.

*Conferences (SCOPUS)*

Cardenas, Sergio, Paul Leger, Hiroaki Fukuda, and Nicolás Cardozo (July 2023). "Points-to Analysis for Context-Oriented JavaScript Programs". In: *Proceedings of the 25th ACM International Workshop on Formal Techniques for Java-like Programs (FTfJP 23)*. Seattle, USA, pp. 18–24. DOI: 10.1145/3605156.3606451. **SCOPUS. Rank C (CORE ranking)**.

Leger, Paul, Nicolás Cardozo, and Hidehiko Masuhara (Oct. 2023b). "An Expressive and Modular Layer Activation Mechanism for Context-Oriented Programming". In: *39th IEEE International Conference on Software Maintenance and Evolution – Journal First Track*. IEEE. **This paper was published first in the Journal Information & Technology (IST); now it is accepted as Journal First. Rank A (CORE ranking)**.

Liu, Shijin, Hiroaki Fukuda, and Paul Leger (Nov. 2023a). "A RF-based Low Rate DDoS Attack Real-time Detection System". In: *33rd International Telecommunication Networks and Applications Conference (ITNAC)*. IEEE. **SCOPUS. To appear. Rank Australasian C (CORE ranking)**.

— (Mar. 2023b). "Real-time DDoS Attack Defense System in SDN Using LSSOM". In: *26th Conference on Innovation in Clouds, Internet and Networks and Workshops (ICIN)*. Paris, France, pp. 69–73. DOI: 10.1109/ICIN56760.2023.10073509. **SCOPUS**.

Leger, Paul, Felipe Ruiz, Nicolás Sepúlveda, and Ismael Figueroa (Apr. 2022). "Evolution of a Haskell Repository and its Use of Monads: An Exploratory Study of Stackage". In: *Proceedings of the 37th Annual ACM Symposium on Applied Computing (SAC 2022)*. Virtual Conference: ACM Press, pp. 1475–1482. DOI: 10.1145/3477314.3506982. **Rank B (CORE ranking)**.

Fukuda, Hiroaki, Ryota Gunji, Tadahiro Hasegawa, Paul Leger, and Ismael Figueroa (Jan. 2020). "Toward distributed Streaming data Sharing Manager for Autonomous Robot Control". In: *IEEE/SICE International Symposium on System Integration (SII)*. Honolulu, USA: IEEE, pp. 862–866. DOI: 10.1109/SII46433.2020.9025920. **SCOPUS. Superseded by Sensors**.

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Machorro, Felipe, Vanessa Romero Ortiz, Paul Leger, and Dayana Jaque (Nov. 2020). "Efecto Mediador de la Gestión del Conocimiento entre las Tecnologías de Información y el Desempeño Organizacional de las Instituciones de Educación Superior". In: *36th IBIMA International Conference*. Granada, España: IBIMA.

Manzano, Carlos, Claudio Meneses, and Paul Leger (Nov. 2020). "Empirical Comparison of Supervised Algorithms for Ransomware Identification on Network Traffic". In: *2020 - The International Conference of the Chilean Computer Science Society (SCCC)*. Coquimbo, Chile: IEEE, pp. 1–7. DOI: 10.1109/SCCC51225.2020.9281283. **SCOPUS**.

Pizarro, Vicky, Mauricio Gallardo, and Paul Leger (Nov. 2020). "Identificando Distribuciones Condicionales Del Ingreso Personal a Través de Técnicas de Agrupamiento". In: *36th IBIMA International Conference*. Granada, España: IBIMA.

Figueroa, Ismael, Bruno García, and Paul Leger (Sept. 2018). "Towards Progressive Verification in Dafny". In: *Proceedings of the XXII Brazilian Symposium on Programming Languages (SBLP 2018)*. São Carlos, Brazil: ACM Press, pp. 90–97. DOI: 10.1145/3264637.3264649. **SCOPUS**.

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*Computing (SAC 2017)*. Marrakech, Morocco: ACM Press, pp. 1245–1250. DOI: 10.1145/3019612.3019783. **Rank B (CORE ranking). Superseded by JUCS (Journal of Universal Computer Science)**.

Sabin, Mihaela, Barbara Viola, John Impagliazzo, Renzo Angles, Mariela Curiel, Paul Leger, Jorge Murillo, Hernán Nina, José Antonio Pow-Sang, and Ignacio Trejos (July 2016). "Latin American Perspectives to Internationalize Undergraduate Information Technology Education". In: *Proceedings of the 2016 ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE 2016)*. Arequipa, Peru: ACM Press, pp. 1–22. DOI: 10.1145/3024906.3029847. **Rank A (CORE ranking). NOTE: Selected in "the best of ourselves" Chilean JCC-2019.**

Rocha, Wiliam, Hiroaki Fukuda, and Paul Leger (Dec. 2015). "Modular Asynchronous Web Programming: Advantages and Challenges". In: *Proceedings Proceedings of 9th International Conference on Bio-inspired Information and Communications Technologies (BICT 2015)*. ACM Press. DOI: 10.4108/eai.3-12-2015.2262472. **SCOPUS**.

Vidal, Cristian, David Benavides, Paul Leger, José Galindo, and Hiroki Fukuda (Dec. 2015). "Mixing of Join Point Interfaces and Feature-Oriented Programming for Modular Software Product Line". In: *Proceedings Proceedings of 9th International Conference on Bio-inspired Information and Communications Technologies (BICT 2015)*. New York, USA: ACM Press. DOI: 10.4108/eai.3-12-2015.2262534. **A mirror version (with the same DOI) was published in the journal EAI Endorsed Transactions on Scalable Information Systems**.

Leger, Paul and Éric Tanter (Sept. 2010). "An Open Trace-Based Mechanism". In: *Proceedings of the 14th Brazilian Symposium on Programming Languages (SBLP 2010)*. Ed. by Jonathan Aldrich and Ricardo Massa. Salvador - Bahia, Brazil, pp. 123–138.

Toledo, Rodolfo, Paul Leger, and Éric Tanter (Mar. 2010). "AspectScript: Expressive Aspects for the Web". In: *Proceedings of the 9th ACM International Conference on Aspect-Oriented Software Development (AOSD 2010)*. Rennes and Saint Malo, France: ACM Press, pp. 13–24. DOI: 10.1145/1739230.1739233. **Rank A (CORE ranking)**.

## *Workshops (SCOPUS)*

Fukuda, Hiroaki, Paul Leger, and Nicolás Cardozo (June 2022). "Layer Activation Mechanism for Asynchronous Executions in JavaScript". In: *Proceedings of the 14th International Workshop on Context-Oriented Programming and Advanced Modularity (COP 22)*. Berlin, Germany: ACM Press, pp. 1–8. DOI: 10.1145/3570353.3570354. **SCOPUS**.

Cleveland, Margareth and Paul Leger (Nov. 2020). "A Collaborative Learning Strategy in an MIS Development Course Using Case Method in Engineering in Information and Management Control". In: *Congreso Chileno de TICs para la Educación (TICXED)*. Coquimbo, Chile: IEEE, pp. 1–5. DOI: 10.1109/SCCC51225.2020.9281192. **SCOPUS**.

Leger, Paul, Hidehiko Masuhara, and Ismael Figueroa (July 2020). "Interfaces for Modular Reasoning in Context-Oriented Programming". In: *Proceedings of the 12th International Workshop on Context-Oriented Programming and Advanced Modularity (COP 20)*. 3. Virtual Event, USA: ACM Press, pp. 1–7. DOI: 10.1145/3422584.3423152. **SCOPUS**.

Leger, Paul and Hiroaki Fukuda (Mar. 2016). "Using Continuations and Aspects to Tame Asynchronous Programming on the Web". In: *Proceedings of the Workshop on Foundations of Aspect-Oriented Languages (FOAL 2016)*. Malaga, Spain: ACM Press, pp. 79–82. DOI: 10.1145/2892664.2892675. **Rank C (CORE ranking). Superseded by JUCS (Journal of Universal Computer Science)**.

Fukuda, Hiroaki and Paul Leger (June 2015c). "Proposals for Modular Asynchronous Web Programming: Issues and Challenges". In: *Proceedings on Pervasive Web Technologies, Trends and Challenges (PEWET 2015)*. Vol. 9396. Lecture Notes in Computer Science. Rotterdam, the Netherlands: Springer, pp. 91–102. DOI: 10.1007/978-3-319-24800-4_8. **Published on Lectures Notes in Computer Science**.

Silva, Cristian Vidal, David Benavides, José Ángel Galindo, Paul Leger, Rodolfo Villarroel, and Sebastián Valenzuela (Nov. 2015). "JPI Feature Models - Exploring a JPI and FOP Symbiosis". In: *WASE 2015 Workshop on Advanced Software Engineering*. Santiago, Chile: IEEE, pp. 1–6. DOI: 10.1109/SCCC.2015.7416583.

Leger, Paul and Éric Tanter (Mar. 2012). "A Self-Replication Algorithm to Flexibly Match Execution Traces". In: *Proceedings of the 11th Workshop on Foundations of Aspect-Oriented Languages (FOAL 2012)*. Potsdam, Germany: ACM Press, pp. 27–32. DOI: 10.1145/2162010.2162019. **Rank C (CORE ranking)**.

*Congresses (Conferences/Workshops not indexed)*
**Note: These papers are just presentations of technical reports or working papers.**

Ortiz, Mario, Paul Leger, and Carmen Hidalgo-Alcázar (Sept. 2022). "Clasificación de Usuarios en Perfiles de Compradores en el Sector Inmobilario: Análisis Mediante una Experiencia Virtual". In: *XXXIII Congreso de Marketing (AEMARK 2022)*. Valencia, Spain.

López, Manuela, Oswaldo Terán, and Paul Leger (Sept. 2021). "Modeling Chinese Cross-Border B2C E-commerce in Spain: A Multi-Agent Based Simulation Approach". In: *XXXII Congreso de Marketing (AEMARK 2021)*. Baeza y Úbeda, Spain.

Figueroa, Ismael, Paulina Guitierrez, Natalia Araya, and Paul Leger (Nov. 2020). "Estudio Indagatorio sobre la Usabilidad Percibida de los Sistemas de Información Contable y Financieros". In: *Conferencia Académica Permanente de Investigación Contable (CAPIC)*. La Serena, Chile.

Pinto, Domingo, Diego Cortes, Paul Leger, and Manuela López (Sept. 2020). "Una Arquitectura de una Implementación Abierta de un Modelo Basado en Agentes para Campañas de WOM Marketing". In: *XI Congreso Internacional de Computación e Informática del Norte de Chile (Infonor 2020)*. Atacama, Chile.

Leger, Paul, Felipe Ruiz, and Guillermo Victorero (Aug. 2019). "DeloreanJs: Un Debugger en el Tiempo para JavaScript". In: *X Congreso Internacional de Computación e Informática del Norte de Chile (Infonor 2019)*. Antofagasta, Chile.

López, Manuela, Carmen Hidalgo-Alcázar, and Paul Leger (Sept. 2019). "Don't Wear me Out! The Effect of Tweet Repetition". In: *XXXI Congreso de Marketing (AEMARK 2019)*. Cáceres, Spain. **Superseded by International Journal of Advertising**.

Pizarro, Vicky, Paul Leger, Carmen Hidalgo-Alcázar, and Ismael Figueroa (Sept. 2018). "Simulación de un Modelo Basado en Agentes para la Elección de Destinos Turísticos". In: *IX Congreso Internacional de Computación e Informática del Norte de Chile (Infonor 2018)*. Iquique, Chile.

Araya, Natalia, Paul Leger, and Manuela López (Sept. 2017). "A Quién Selecciono? Análisis De Hubs y Líderes de Opinión en la Difusión de Información en Twitter. Una Simulación Basada en Agentes". In: *XXIX Congreso Internacional de Marketing (AEMARK 2017)*. Sevilla, Spain. **Superseded by IEEE Latin America Transactions**.

López, Manuela, Carmen Hidalgo-Alcázar, and Paul Leger (Sept. 2017a). "How many times should a company repeat a tweet to reach the highest diffusion? An agent-based simulation approach". In: *V Workshop De Jóvenes Investigadores En Economía Y Empresa*. Jaca, Spain.

— (July 2017b). "The Effect of Message Repetition on Information Diffusion on Twitter Using an Agent-Based Simulation". In: *The 2017 International Conference on Research in Advertising (ICORIA 2017)*. Ghent, Belgium. **Superseded by International Journal of Advertising**.

Pizarro, Vicky, Paul Leger, and Carmen Hidalgo-Alcázar (Sept. 2017). "Elección de los Destinos Turísticos de España: Una Simulación Basada en Agentes". In: *XXIX Congreso Internacional de Marketing (AEMARK 2017)*. Sevilla, Spain.

López, Manuela, Carmen Hidalgo-Alcázar, and Paul Leger (Sept. 2016). "Tell Me Again! The Effect of Message Repetition on Information Diffusion on Twitter: An Agent-Based Approach". In: *XXVIII Congreso de Marketing (AEMARK 2016)*. Leon, Spain.

— (Sept. 2015a). "An Agent-based Information Difussion Study on Social Network Sites". In: *III Workshop Jóvenes Investigadores en Economía y Empresa*. Teruel, Spain. **Superseded by International Journal of Advertising**.

— (Sept. 2015b). "Don't Bother Me with Many Messages: An Information Diffusion Study on Social Network Sites with An Agent-Based Approach". In: *XXVII Congreso de Marketing (AEMARK 2015)*. Pamplona, Spain. **Best Working Paper Award!. Superseded by International Journal of Advertising**.

Vidal, Cristian, David Benavides, José Galindo, and Paul Leger (Sept. 2015). "Exploring the Synergies between Join Point Interfaces and Feature-Oriented Programming". In: *XX Jornadas de Ingeniería del Software y Bases de Datos (JISBD 2015)*. Santander, España.

Azegami, Takeshi, Hiroaki Fukuda, and Paul Leger (Nov. 2014). "Towards a Virtual Block Approach to Tame Asynchronous Programming". In: *Proceedings of 8th International Conference on Bio-inspired Information and Communications Technologies (BICT 2014)*. Boston, USA, pp. 239–242. DOI: 10.4108/icst.bict. 2014.257939. **Superseded by IJSEKE (International Journal of Software Engineering and Knowledge Engineering)**.

Vidal, Elizabeth, Edwin Morales, and Paul Leger (Oct. 2014). "Usando BPMN para Modelar Procesos en el Área de Ingeniería y Proyectos de una Empresa Minera del Perú". In: *VI Congreso Internacional de Computación y Telecomunicaciones (COMTEL 2014)*. Lima, Peru.

Ramírez, Pablo, Paul Leger, and Andres Vallone (Aug. 2013). "Un Modelo Flexible para la Simulación de Distribución de Ciudades". In: *IV Congreso Internacional de Computación e Informática del Norte de Chile (Infonor 2013)*. Coquimbo, Chile. **Superseded by INGENIARE**.

Ramírez, Patricio, Paul Leger, and Carolina Fuentes (Nov. 2013). "Explorando los Programas de Ingeniería en Sistemas de Información y Control de Gestión en Chile". In: *XV Congreso Chileno de Educación Superior en Computación (CCESC 2013)*. Temuco, Chile. **Superseded by Formación Universitaria**.

Leger, Paul (Nov. 2010). "Developing Context-Aware Systems Using Expressive Trace-based Mechanisms". In: *Encuentro Tesistas de Doctorados en Jornada Chilena de Computación (JCC)*. Antofagasta, Chile.

Leger, Paul and Éric Tanter (Mar. 2010). "Towards an Open Trace-Baced Mechanism". In: *Proceedings of the Ninth Workshop on Foundations of Aspect-Oriented Languages (FOAL 2010)*. Ed. by Gary T. Leavens, Shmuel Katz, and Mira Mezini. Rennes and Saint-Malo, France, pp. 25–30. **Tech report CS-TR-10-04, University of Central Florida**.

Leger, Paul (Nov. 2008). "Context-Dependent Adaptations Using Tracematch Extensions". In: *Encuentro Tesistas de Doctorados en Jornada Chilena de Computación (JCC)*. Punta Arenas, Chile.

## Posters

Leger, Paul, Carmen Hidalgo-Alcázar, and Manuela López (Apr. 2018). "Using an agent-based model to measure the message repetition effect on Twitter". In: *Proceedings of the 33rd Annual ACM Symposium on Applied Computing (SAC 2018)*. Pau, France: ACM Press, pp. 1828–1830. DOI: 10.1145/3167132.3167429. **Superseded by International Journal of Advertising**.

Fukuda, Hiroaki and Paul Leger (Apr. 2015a). "A Library to Modularly Control Asynchronous Executions". In: *Proceedings of the 30th Annual ACM Symposium on Applied Computing (SAC 2015)*. Salamanca, Spain: ACM Press, pp. 1648–1650. DOI: 10.1145/2695664.2696034.

— (June 2015b). "An Efficient Agent Location Management for Wireless Sensor Networks". In: *Proceedings of International Conference on Distributed Computing in Sensor Systems (DCOSS 2015)*. Fortaleza, Brazil: ACM Press, pp. 10–12. DOI: 10.1109/DCOSS.2015.19. **Superseded by JUCS (Journal of Universal Computer Science)**.

Leger, Paul, Manuela López, Carmen Hildago-Alcázar, and Hiroaki Fukuda (Dec. 2015). "An Open Agent-Based Model to Simulate the Effect of WOM Marketing Campaigns". In: *Proceedings Proceedings of 9th International Conference on Bio-inspired Information and Communications Technologies (BICT 2015)*. New York, USA: ACM Press. DOI: 10.4108/eai.3-12-2015.2262533. **A mirror version (with the same DOI) was published in the journal EAI Endorsed Transactions on on Smart Cities**.

Leger, Paul and Hiroaki Fukuda (Nov. 2014). "Why do Developers not Take Advantage of the Progress in Modularity?" In: *Proceedings Proceedings of 8th International Conference on Bio-inspired Information and Communications Technologies (BICT 2014)*. Boston, USA: ACM Press, pp. 388–389. DOI: 10.4108/icst.bict. 2014.257938.

## Ph. D.

Leger, Paul (Nov. 2012). "Opening Up Trace-Based Mechanisms — Application to Context-Aware Systems". PhD thesis. University of Chile, pp. 1–180.

## 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, 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 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.

**ESA-JS:** An implementation of ESA, describing an expressive stateful aspect language. A stateful aspect language supports the definition of monitors to observe and react to a program execution trace. They have numerous applications in domains like error detection, security, and modular definition of crosscutting concerns. 2012.

**WeCa:** A practical library that allows for modular and flexible control over causality issues on the Web. In contrast to current proposals, WeCa uses stateful aspects, message-ordering strategies, and vector clocks. WeCa has been used with several practical examples from Web applications. For instance, we analyze the flow of information in these applications like Twitter using WeCa. 2012.

## 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.

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

**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 & 2017.

**In the press**,

El Observatorio, a Japanese-Chilean collaboration:
http://www.elobservatodo.cl/noticia/tecnologia/expertos-de-japon-y-ucn-colaboran-en-proyectos-dedicados-computacion

Viva Chile Elqui, only Chilean researcher who worked on the update of IT curricula:
http://vivechileelqui.cl/2016/09/05/academico-ucn-es-unico-chileno-colaborando-en-actualizacion-mundial-en-computacion

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

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

## 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.