

Diego Emilio Bustamante Henríquez

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Education

2024-2022 <i>Santiago, Chile</i>	Pontificia Universidad Católica de Chile Master of Science in Engineering Sciences with specialization in <i>Computer Science</i> <i>Graduated with maximum distinction. GPA: 4.0/4.0. Graduation ranking: 2nd of 84 students.</i>
2024-2018 <i>Santiago, Chile</i>	Pontificia Universidad Católica de Chile Bachelor of Engineering in Computer Science <i>Graduated with maximum distinction. GPA: 4.0/4.0. Graduation ranking: 2nd of 343 students.</i>
2022-2018 <i>Santiago, Chile</i>	Pontificia Universidad Católica de Chile Bachelor of Science in Engineering <i>Graduated with distinction. GPA: 4.0/4.0. Graduation ranking: 6th of 499 students.</i>

Academic honours

2023 <i>Santiago, Chile</i>	ANID - National Master Scholarship <i>National Scholarship for Master students awarded by ANID, an agency of the Ministry of Science, Technology, Knowledge and Innovation of Chile. Selected the 23rd of only 250 scholars awarded by ANID nationwide per year.</i>
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Work experience

2025-2024 <i>Santiago, Chile</i>	Pontificia Universidad Católica de Chile - Teacher (2 Semesters) <i>Adjunct professor of the Computer Science course Discrete Mathematics.</i>
2024-2023 <i>Tokyo, Japan</i>	National Institute of Informatics - Intern (3 Months) <i>Researcher at Linked Open Data for Academia (LODAC) laboratory under the supervision of PhD. Hideaki Takeda. Applied Natural Language Processing techniques to SPARQL query generation for Knowledge Graph Question Answering.</i>
2024-2021 <i>Santiago, Chile</i>	Pontificia Universidad Católica de Chile - Advanced teacher assistant (4 Semesters) <i>Gave lectures and graded tests at: Logic for Computer Science; Formal Languages and Automata Theory; Digital Computing: Science and Technology of the Digital World; and Database Systems Implementation.</i>
2023 <i>Santiago, Chile</i>	Millennium Institute Foundational Research on Data - Intern (2 Months) <i>Developer at MillenniumDB, a Graph Database System. Worked on the SPARQL implementation as a new query language.</i>
2022-2018 <i>Santiago, Chile</i>	Lazos S.A. - Independent service provider (Sporadic) <i>Did maintenance activities at the company servers located in Santiago.</i>

Publications

- D. Bustamante. A Journey from Curiosity to Higher-Dimensional Geometry. Preprint on Zenodo, Apr. 2025. DOI: [10.5281/zenodo.15204563](https://doi.org/10.5281/zenodo.15204563).
- M. Arenas, P. Barceló, D. Bustamante, J. Caraball, and B. Subercaseaux. A Uniform Language to Explain Decision Trees. In *Proceedings of the 21st International Conference on Principles of Knowledge Representation and Reasoning*, pages 60–70, Aug. 2024. DOI: [10.24963/kr.2024/6](https://doi.org/10.24963/kr.2024/6).
- D. Bustamante. *Towards a Generalized Uniform Language for Explainability*. Master's thesis, Pontificia Universidad Católica de Chile, Nov. 2024. DOI: [10.7764/tesisUC/ING/89130](https://doi.org/10.7764/tesisUC/ING/89130).
- D. Bustamante and H. Takeda. SPARQL Generation with Entity Pre-trained GPT for KG Question Answering. Preprint on arXiv, 2024. DOI: [10.48550/arXiv.2402.00969](https://doi.org/10.48550/arXiv.2402.00969).
- J. P. Salazar-Fernandez, J. Munoz-Gama, J. Maldonado-Mahauad, D. Bustamante, and M. Sepúlveda. Backpack Process Model (BPPM): A Process Mining Approach for Curricular Analytics. *Applied Sciences*, 11(9):4265, 2021. ISSN: 2076-3417. DOI: [10.3390/app11094265](https://doi.org/10.3390/app11094265).
- J. Munoz-Gama, J. Maldonado-Mahauad, J. P. Salazar-Fernandez, D. Bustamante, and M. Sepúlveda. BackPack Process Model (BPPM): Curricular Analytics through Process Mining. In *LALA2020: III Conferencia Latinoamericana de Analíticas de Aprendizaje*, Cuenca, Ecuador, 2020.

Skills

<i>Languages:</i>	Native: Spanish. Advanced: English (C1). Basic: Japanese (N4) & Mapudungún.
<i>Programming Languages:</i>	Advanced: R , Python , C & C++ . Basic: Go , JavaScript , Dart , Ruby & PHP .
<i>Computer skills:</i>	Advanced: SQL , SPARQL , GitHub , L^AT_EX , HTML , PostgreSQL & Office . Basic: IBM Quantum , PyTorch , Clingo , Flutter , Rails , MongoDB , koa , SEO , Heroku & namecheap .