Diego Emilio Bustamante Henríquez

Contact: diegobustama@hotmail.com Website:diegoemilio.com GitHub: DiegoEmilio01

Education

2024-2022 — *Santiago, Chile*
Pontificia Universidad Católica de Chile
Master of Science in Engineering Sciences with specialization in Computer Science
Graduated with maximum distinction. GPA: 4.0/4.0. *Graduation ranking:* 2^{nd} *of* 84 *students.*

2024-2018 — *Santiago, Chile*
Pontificia Universidad Católica de Chile
Bachelor of Engineering in Computer Science
Graduated with maximum distinction. GPA: 4.0/4.0. *Graduation ranking:* 2^{nd} *of* 343 *students.*

2022-2018 — *Santiago, Chile*
Pontificia Universidad Católica de Chile
Bachelor of Science in Engineering
Graduated with distinction. GPA: 4.0/4.0. *Graduation ranking:* 6^{th} *of* 499 *students.*

Academic honours

2023 — *Santiago, Chile*
ANID - National Master Scholarship
National Scholarship for Master students awarded by ANID, an agency of the Ministry of Science, Technology, Knowledge and Innovation of Chile. Selected the 23^{rd} *of only* 250 *scholars awarded by ANID nationwide per year.*

Work experience

2024 — *Santiago, Chile*
Pontificia Universidad Católica de Chile - Teacher (1 Semester)
Adjunct professor of the Computer Science course Discrete Mathematics.

2024-2023 — *Tokyo, Japan*
National Institute of Informatics - Intern (3 Months)
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.

2024-2021 — *Santiago, Chile*
Pontificia Universidad Católica de Chile - Advanced teacher assistant (4 Semesters)
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.

2023 — *Santiago, Chile*
Millennium Institute Foundational Research on Data - Intern (2 Months)
Developer at MillenniumDB, a Graph Database System. Worked on the SPARQL implementation as a new query language.

2022-2018 — *Santiago, Chile*
Lazos S.A. - Independent service provider (Sporadic)
Did maintenance activities at the company servers located in Santiago.

Publications

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. URL: 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. URL: https://repositorio.uc.cl/handle/11534/89130.

D. Bustamante and H. Takeda. SPARQL generation with entity pre-trained GPT for KG question answering, 2024. arXiv: 2402.00969 [cs.CL].

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.

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

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