GABRIEL ITURRA-BOCAZ Ph.D.(C)

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EDUCATION

Department of Computer Science, University of Stavanger — Stavanger, Norway
Ph.D. Student in Computer Science — 2024 - 2027 *(expected)*
- Advisor: Prof. Petra Galuscakova
- Research area: Natural Language Processing and Information Retrieval

Department of Computer Science, University of Chile — Santiago, Chile
M.Sc. in Computer Science — 2021 - 2022
- Advisor: Felipe Bravo-Marquez
- GPA: 3.90/4.00

Department of Computer Science, University of Chile — Santiago, Chile
B.E. in Computer Science — 2015 - 2020
- GPA: 3.40/4.00

PUBLICATIONS

1. V. V, V. Setty, A. Avishek, H. Maram, B. Boushra, B. Houda, A. Firoj, **G. Iturra-Bocaz** and P. Galuscakova verview of the CLEF-2025 CheckThat! Lab Task 3 on Fact-Checking Numerical Claims (CLEF 2025), Madrid, Spain.

2. **G. Iturra-Bocaz**, D. Vo and P. Galuscakova Impact of Shallow vs. Deep Relevance Judgments on BERT-based Reranking Models. Proceedings of the 2025 International ACM SIGIR Conference on Innovative Concepts and Theories in Information Retrieval (ICTIR 2025), Padua, Italy. Association for Computing Machinery. DOI:10.1145/3731120.3744602

3. **G. Iturra-Bocaz** and F. Bravo-Marquez RiverText: A Python Library for Training and Evaluating Incremental Word Embeddings from Text Data Stream. In Proceedings of the 46th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2023), Taipei, Taiwan. Association for Computing Machinery.

WORK EXPERIENCE

AMSA and Global Conexus | Santiago, Chile — 2023.12 - 2024.08
- RAG-based intelligent chatbot system for automated access to mining machinery information.
- Build and manage systems to collect, integrate, store, and process data from different sources.

Replai S.A. | Santiago, Chile — 2022.12 - 2023.11
- Implementation of a vector database to efficiently store and search legal documents, reducing query time by 50%.
- Integration of LLM models with the search system using Retrieval-Augmented Generation (RAG) techniques, enabling natural language queries and providing more accurate responses.
- Development and training of generative AI models using TensorFlow, PyTorch, and Hugging Face to process and understand complex legal language.

Teaching and Supervision

Data Science Laboratory course | University of Chile
- As Lecturer.
- Semesters Spring 2023, Spring 2025.

Master Thesis Supervision | University of Stavanger
- Project: Supporting Human Decision Making using RAG systems.
- Co-supervise with Petra Galuscakova.

Research in Computer Science | University of Chile
- As Teaching Assistant.
- Semesters Spring 2021, Fall 2022, Spring 2022, Fall 2023, Spring 2023, Fall 2024, Spring 2024, Fall 2025.

Awards and Honors

- **SIGIR Student Travel Grant**, SIGIR'25,   2025.07
- **Doctoral Scholarship**, University of Stavanger   2024.11
- **SIGIR Student Travel Grant**, SIGIR'23,   2023.07
- **Outstading Student**, University of Chile   2016.10

Skills

Languages: Spanish (Native), English (Full professional proficiency), Norwegian Bokmål (basic).

Programming: `Python`, `Java`, `R`, `C/C++`.

Especial Framework: `PyTorch`, `LangChain`, `transformers`, `Streamlit`, `FastAPI`, `Django`.

Academic Services

Reviewers for: *Journal Referee at Nature's Scientific Reports*

Workshop on Computational Approaches to Subjectivity, Sentiment and Social Media Analysis