Claudio Aracena

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Education

- **University of Chile** — **Santiago, Chile**
  PhD student in Engineering Systems — *2021 - Present*

- **University of Sydney** — **Sydney, Australia**
  Master of Information Technology and Master of Information Technology Management — *2015 - 2017*

- **University of Chile** — **Santiago, Chile**
  Industrial Engineering with Major in Information Technology — *2008 - 2013*
  Graduated with highest distinction

Experience

- **GobLab UAI - Adolfo Ibáñez University** — **Santiago, Chile**
  Associate Researcher — *January 2022 - Present*
  Data Scientist — *October 2019 - December 2021*

    - Data analysis for GobLab UAI projects and grant applications. Main projects: analysis of citizens' comments about Congress bills using NLP and air pollution forecasting in an industrial zone.

- **Center for Mathematical Modeling - University of Chile** — **Santiago, Chile**
  Project Engineer — *October 2018 - September 2019*

    - No-show prediction for medical appointments at the Luis Calvo Mackenna Hospital using machine learning.

- **Chatbot Chile** — **Santiago, Chile**
  Co-founder — *July 2017 - Present*

    - Development of chatbots for several clients and dashboard for chatbot administration (chatbotchile.cl).

- **Plannertrip** — **Sydney, Australia**
  Co-founder — *December 2016 - September 2017*

    - Development of Plannertrip platform (plannertrip.com, travel startup), apply for funding, and manage Plannertrip team. Plannertrip was part of the INCUBATE program from the University of Sydney.

- **Data61, CSIRO** — **Sydney, Australia**
  Associate Software Developer — *October 2015 - December 2016*

    - Software development for 64knots team (freight and shipping optimization and machine learning group).

- **VSB - Technical University of Ostrava** — **Ostrava, Czech Republic**
  Research Intern — *October 2014 - January 2015*

    - Study of relation between pupil dilation and emotions based on neural network analysis.
        * Identifying salient website object: Comparative study between neurodata, pupil dilation and eye fixations.
        * Survey on Big Data and Internet of Things.

- **Web Intelligence Centre - University of Chile** — **Santiago, Chile**
  Project Engineer — *2014*

    - Study of relation between EEG, pupil dilation, and emotions based on machine learning methods. Application of results to web object saliency.
    - Keep track of the AKORI project and write progress reports for funding institution.

- **Infosys Limited** — **Bangalore, India**
  Intern — *January - March 2013*

    - Development of a text classification project using tweets. Data modeling and implementing a database for tweets storage and posterior analysis.

Teaching Experience

- **Adolfo Ibáñez University, School of Government** — **Santiago, Chile**
  Lecturer — *2020 - Present*
  - Machine Learning and Text Mining courses of the Diploma of Data Science for Public Policy, and Data Science Project Scoping course.

- **University of Development, Faculty of Engineering** — **Santiago, Chile**
  Lecturer — *2018 - Present*
  - Course of storage and data capture of Master of Data Science program.

- **Intersect Australia** — **Sydney, Australia**
  Trainer — *February 2018 - August 2018*
  - Teaching using live coding methodologies (Python, R, SQL, MATLAB, BASH, GIT, among others).

- **University of Chile, Department of Industrial Engineering** — **Santiago, Chile**
  Lecturer — *March 2014 - July 2014*
  - Course of Data Warehousing.

- **University of Chile, Department of Industrial Engineering** — **Santiago, Chile**
  Teaching Assistant — *2012 - 2013*
  - Information Technologies: 2 semesters; Web Mining: 2 semesters
  - Introduction to Knowledge Management and Web and Business: 1 semester each course

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Publications

Journal papers

Aracena, C., Villena, F., Arias, F., Dunstan, J. Aplicaciones de aprendizaje automático en salud (2022). Revista Médica Clínica Las Condes, 33(6), 568-575.

Conference papers

Rodolfo Garcia-Flores, Soumya Banerjee, George Mathews, Blandine Vacher, Brian Thorne, Nazanin Borhan, **Claudio Aracena** and Yuriy Tyshetskiy. Analysis of Demand and Operations of Inter-modal Terminals (2017). National Conference of the Australian Society for Operations Research.

Oweis, N.E., **Aracena, C.**, George, W., Oweis, M., Soori, H., Snasel, V. Internet of Things: Overview, Sources, Applications and Challenges (2016). Proceedings of the Second International Afro-European Conference for Industrial Advancement AECIA.

Aracena, C., Basterrech, S., Snášel, V., and Velásquez, JD. Neural Networks for Emotion Recognition Based on Eye Tracking Data (2015). IEEE International Conference on Systems, Man, and Cybernetics (IEEE SMC).

Slanzi, G., **Aracena C.**, and Velásquez, JD. Eye tracking and EEG features for salient Web object identification (2015). International Conference on Brain Informatics & Health (BIH).

Workshop papers

Aracena, C., Villena, F., Rojas, M., and Dunstan, J. A Knowledge-Graph-Based Intrinsic Test for Benchmarking Medical Concept Embeddings and Pretrained Language Models (2022). International Workshop on Health Text Mining and Information Analysis (LOUHI) at EMNLP.

Aracena, C., Loyola, P., Slanzi, G., Matsuo, Y., and Velásquez, JD. Towards An Unified Replication Framework for EEG-based Emotion Classification (2015). BrainKDD: The 2nd International Workshop on Data Mining for Brain Science at ACM SIGKDD.

Policy Papers

Gabriela Denis, María Paz Hermosilla, **Claudio Aracena**, Roberto Sánchez Ávalos, Natalia González Alarcón, and Cristina Pombo. Responsible use of AI for public policy: Project formulation manual (2021). Inter-American Development Bank Publications.

Core Technical Skills

Programming Languages: Python, R, Javascript, SQL, PHP, Java, MATLAB, LaTeX.
Operative Systems: Ubuntu, Windows
Frameworks and technologies: Pytorch, HuggingFace, Django, Wordpress, Amazon Web Services, GIT, Docker, Microsoft Office (Excel, Word and Power Point).

Languages

Spanish: Native speaker
English: Advanced – TOEFL Score: 96 (2015)

Distinctions

- **ANID** — **Santiago, Chile**
  Scholarship for National PhD programs — *2021 - Present*
  - The scholarship is awarded to selected students who pursue a PhD program in a Chilean university.

- **Conicyt** — **Santiago, Chile**
  Becas Chile (Scholarship) — *2015 - 2017*
  - The scholarship is awarded to students who pursue a postgraduate degree in a remarkable foreign university and have shown excellent academic records.

- **University of Chile** — **Santiago, Chile**
  University of Chile Scholarship — *2007 - 2013*
  - It is awarded to the first 100 students that have been selected by the university for the first year.