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CIENCIAS DE LA COMPUTACIÓN
UNIVERSIDAD DE CHILE

Reinforcement Learning / Evolutionary Algorithm

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About myself

- Computer scientist at RelationalAI: https://relational.ai/
- Company based in Berkeley, Silicon Valley, working remotely from Switzerland
- Until March 2022, Full-time Professor at the Department of Computer Science
- Wrote 4 books, 180 publications
- Gave a talk at NASA JPL, German Aerospace Center
- Creator of this diplomado
- Researcher in the field of *software engineering & AI*
  - *Testing critical software systems*
  - Including robotic and flight software satellite
  - Database reliability
- We design and develop *AI techniques* to *improve the way we build software*

Agenda

- 01-12-2025: Reinforcement learning
- 02-12-2025: Reinforcement learning
- 04-12-2025: Genetic Algorithm
- 09-12-2025: Genetic Algorithm
- 11-12-2025: Genetic Algorithm
- 15-12-2025: Genetic Programming
- 16-12-2025: Neuroevolution
- 18-12-2025: Tareas & Cierre

Evaluation (marked in red)

- 01-12-2025: Reinforcement learning
- 02-12-2025: Reinforcement learning
- 04-12-2025: Genetic Algorithm
- 09-12-2025: Genetic Algorithm
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- 15-12-2025: Genetic Programming
- 16-12-2025: Neuroevolution
- 18-12-2025: Tareas & Cierre

Evaluation

- You will have 3 tareas
- Your final grade is the average of these 3 tareas
- If you have an average between 3.7 and 3.9, you can have a “recuperativo”
- Each tarea can be done alone, or in group (max = 4)
- Group can be changed at each tarea
- You can improve one of your previous tarea the last day of the course

Evaluation

We will use Google Colab for the practical sessions

The only URL to consider is:

https://bit.ly/2025-DiplomadoAI

This link to Google drive contains all the exercises we will do

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