



# ROBERTO IBÁÑEZ

## CONTACT

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## SKILLS

- Project Design
- Business Systems
- Attention to Detail
- Team Leadership
- Resource Management
- Improving Efficiency

## EDUCATION

Bachelor degree in  
Mechanical engineering  
Universidad de Chile  
2010 - 2017

## PROFESSIONAL PROFILE

Graduated in Mechanical Engineering with experience in modeling and data processing. I have analytical skills, problem solving skills, leadership skills, coordination skills and team management. I am proactive, with an openness to learning and the ability to adapt to changes. I am interested in participating in projects that improve the world using the power of information, I am passionate about machine learning and natural language processing.

## EXPERIENCE

### ARTIFICIAL INTELLIGENCE ENGINEER

PROTERA BIOSCIENCE / SANTIAGO / 2018-PRESENT

*In silico* protein design

- Protein design by applying specific mutations in the sequence through latent spaces generated from unsupervised machine learning in protein sequences (Skip-gram, CBOW, AutoEncoder).
- Implementation of classifiers to predict the function of proteins from the primary sequence. Use of recurrent neural networks and attention models (LSTM, GRU, BiLSTM, Attention, Self-Attention).

*De Novo* protein design

- Prediction of the tertiary structure of proteins from the primary sequence using supervised machine learning in protein sequences. Use of recurrent neural networks and attention models (LSTM, GRU, BiLSTM, Attention, Self-Attention, Seq2Seq, RVAE).
- Prediction of the primary structure of proteins from the tertiary structure using supervised machine learning in protein sequences. Use of recurrent neural networks and attention models (LSTM, GRU, BiLSTM, Attention, Self-Attention, Seq2Seq, RVAE).

### RESEARCH ASSISTANT

UNIVERSIDAD DE CHILE / SANTIAGO / 2017-2018

Development of language models in Spanish using DeepLearning techniques such as recurring networks and word embedding to generate text in Spanish through the use of characters, syllables and words.

# ROBERTO IBAÑEZ

## SKILLS

PyTorch



TensorFlow



Keras



Python



C/C++



Matlab/Octave



LaTeX



## AWARDS

**IBM-SMU Hackatón**

**Third place**

Hackathon of Business Data Analysis, January 2018.

## LANGUAGES

- English
- Spanish

## INTERESTS

- Travel
- Music
- Watch Series/Movies

## EXPERIENCE CONTINUED...

### SCIENTIFIC TECHNICIAN ASSISTANT

SILVA & CIA / SANTIAGO / 2016-2017

- Preparation of patentability studies of technologies associated with energy, structures, mobility, etc.
- Preparation of technological forecasting for mining companies.
- Presentation and follow-up of national and PTC patent applications.
- Development of text classification models using natural language processing techniques such as Word2Vec and WordEmbedding to identify similarity between patents.

### RESEARCH ASSISTANT

CSIRO RESEARCH / SANTIAGO / 2015-2016

- Development of finite element models for the analysis of properties in biphasic fluids and their effect on the performance of hydraulic machines.
- Test bench design for the performance of wear tests on materials and performance tests on hydraulic machines.

## REFERENCES

### LEONARDO ALVAREZ

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