

# Julissa VILLANUEVA

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## FORMATION

- 2023 **PhD. in Computer Science**, University of São Paulo, São Paulo-Brazil.
- 2017 **Master in Computer Science**, University of São Paulo, São Paulo-Brazil.
- 2013 **Bachelor in Systems Engineering**, National University of San Agustin, Arequipa-Peru .

## SKILLS

- Programming** Python , C/C++, R, Java, Julia, Ruby, Cobol, VisualBasic.
- Libraries** Numpy, Pandas, Scikit-learn, HuggingFace, Pytorch, Scipy, Seaborn, Matplotlib, Orange, QML, Django (Backend), GPT-API, Langchain, Chromadb , FAISS.
- Databases** MySQL, PostgreSQL.
- Miscellaneous** Git,  $\text{\LaTeX}$ , Shell, Pack Office(Word, Excel, PowerPoint).

## EXPERIENCE

- Ago 2023** | **Machine Learning Engineer , FREELANCE,**  
**Sep 2023** | Legal documents review with GPT API.
  - > Data analysis.
  - > Question answering with Embeddings.
  - > Text generation with GPT 3.5

Python OpenAI GPT3.5 Langchain Chromadb
- Nov 2022** | **Data Scientist - Technological and Industrial Development (B), TELESSAÚDERS,**  
**Jul 2023** | Development of Natural language Processing system (Classification of clinical cases ).
  - > Data visualization.
  - > Data analysis.
  - > Deep Transformer models (BERT).
  - > Measuring predictive uncertainty.

Python HuggingFace PyTorch Sklearn Pandas Seaborn
- Dec 2020** | **Teacher, DATA SCIENCE RESEARCH PERÚ,**  
**May 2022** | Teaching online courses :
  - > Introduction to Python.
  - > Introduction to Statistics.
  - > Machine learning.
  - > Mathematics for Machine Learning.

Python
- March 2018** | **Teaching Assistant, UNIVERSITY OF SÃO PAULO,**  
**July 2020** | Teaching Assistant on undergraduate courses :
  - > Artificial Intelligence,.
  - > Programming Languages.
  - > Introduction to Computer Science.

Python
- March 2014** | **Trainee, TATA CONSULTANCY SERVICES, AREQUIPA-PERU,**  
**May 2015** | Development and testing of bank systems.

COBOL VisualBasic



## COURSE WORK

- > Artificial Intelligence
- > Machine Learning
- > Statistical Learning

- > Probabilistic Models based on Graphs
- > Database Modeling
- > **Master Thesis** : Multi-Label classification based on sum-product networks
- > **PhD. Dissertation** : Global qualitative analysis for probabilistic circuits

## LANGUAGES

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Spanish   
 Portuguese   
 English 

## INTERESTS

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- > Artificial Intelligence
- > Machine Learning and applications
- > Statistics

## PUBLICATIONS

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- 2022 **Tractable classification with non-ignorable missing data using Generative Random Forests**, J.V. Llerena and D. D. Mauá, in Proceedings of the Tenth Symposium on Knowledge Discovery, Mining and Learning.
- 2021 **Cautious Classification with Data Missing Not at Random using Generative Random Forests**, J.V. Llerena, D. D. Mauá and A. Antonucci, in Proceedings of the Sixteenth European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty.
- 2020 **Efficient Algorithms for Robustness Analysis of Maximum A Posteriori Inference in Selective Sum-Product Networks**, J.V. Llerena and D.D. Mauá, in : International Journal of Approximate Reasoning.
- 2020 **Tractable inference in credal sentential decision diagrams**, L. Mattei, A. Antonucci, D.D. Mauá, A. Facchini, J.V. Llerena, in : International Journal of Approximate Reasoning
- 2020 **Predictive Uncertainty Estimation for Tractable Deep Probabilistic Models**, J.V. Llerena, in : Proceedings of the Doctoral Consortium of the 29th International Joint Conference on Artificial Intelligence.
- 2020 **Efficient Predictive Uncertainty Estimators for Deep Probabilistic Models**, J.V. Llerena and D.D. Mauá, in : Proceedings of the Doctoral Consortium of the 24th AAAI Conference on Artificial Intelligence.
- 2019 **Robust Analysis of MAP Inference in Selective Sum-Product Networks**, J.V. Llerena, D.D. Mauá, in : Proceedings of the 20th International Symposium on Imprecise Probabilities : Theories and Application
- 2017 **On using sum-product networks for multi-label classification**, J.V. Llerena and D.D. Mauá, in : Proceedings of the 6th Brazilian Conference on Intelligent.

## AWARDS AND FUNDING

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- 2022-2023 CNPQ Scholarship for Technological and Industrial Development (B)
- 2017-2022 CAPES Scholarship for PhD. in Computer Science at University of São Paulo
- 2015-2017 CAPES Scholarship for Master in Computer Science at University of São Paulo