

# Erika Rita Ortiz

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## Machine Learning Engineer

I am a Python Developer specialized in Machine Learning. I am currently working on multiple machine learning projects with this stack of technologies: **Python, Numpy, Pandas, Scikit-learn, Keras, PyTorch, Docker, and AWS**. I am also a Ph.D. in Philosophy candidate with extensive experience, +12 years, in academic research and teaching in the Philosophy of Mathematics, Philosophy of Science, and Logic. I am looking for my next challenge in the machine learning industry where I can find solutions to business problems and be impactful while deep diving into bring into play my analytical goal-oriented mindset and problem-solving skills gained in my different careers.

## Work Experience

### Developer at AnyoneAI

September 2022 – present

*Highly selective fellowship program (<2% acceptance rate) where top talent comes to accelerate their machine learning careers, surrounded by a community of AI professionals and experts.*

- **Automated product categorization for e-commerce – Team leader of the final project:** led a small team of four members through the development of an API-based web-service application that is backed by a multi-label classification model. This model receives textual information and -optionally – an image of a product and predicts out of 213, the best five fitting business product categories. It combines two NLP-supervised models and a CNN computer vision model trained on the textual information and images of the products (+40K samples), respectively. The ensemble model achieves 82% top 1 accuracy, and 98% top 5 accuracy in the prediction of product categories.

As the team leader, I applied Scrum methodology organizing and moderating a weekly sprint planning meeting to set high-priority goals, daily meetings for task delegation, and/or progress reports. All the tasks were uploaded on a Kanban board in Trello. Finally, I organized and facilitate weekly sprint-review and sprint-retrospective meetings. The selected methodology, allowed me and my team to implement a multimodal classification model using text and images. In doing so, we surpassed the requirement of processing only textual elements of the products, widening the scope of the project. In addition, we were able to devise custom metrics for models' performance evaluation in capturing the hierarchical structure of labels. Finally, we developed a friendly-user interface for our API.

**Other Projects:** Salary Prediction Model, Home Credit Risk Analysis, Vehicle Classification from images, Sentiment Analysis on Movies Reviews

**Main Technologies:** Python, Numpy, Pandas, Seaborn, Matplotlib, Keras, Scikit-learn, Pytorch, Flask, Docker, AWS

### Assistant Professor at Universidad Católica de Cordoba

March 2022 - present

*Higher education institution*

- Professor of "logic and epistemology" of the licentiate in psychology carrying out teaching and research activities. Delivered lectures to undergraduate students on topics such as propositional logic, valid and invalid patterns of inference, formal and informal arguments, epistemology and methodology of scientific research, and introduction to epistemological problems of psychology.

**Skills:** curriculum development + lesson planning + transfer of subject-specific knowledge + leadership + facilitation and moderation of classroom discussions + constructive criticism + grant writing + collaborative and individual writing of teaching material and scholarly articles + time management

### **Doctoral Fellow at CONICET**

April 2015 – August 2022

*The National Scientific and Technical Research Council (CONICET) main government agency that fosters the development of science and technology in Argentina.*

- Researched on virtues of multimodal inferences in mathematical problem-solving and innovation. Finished dissertation thesis dedicated to analyzing the importance of using in combination formal languages, natural languages as well as diagrams for the development of infinitesimal calculus.
- Invited participation to the Graduate Symposium of the 10th International Conference on the Theory and Application of Diagrams. Edinburgh Napier University, Edinburgh, Scotland, June 2018.
- Invited participation to the Leibniz Summer School. Max Planck Institut für Mathematik in den Naturwissenschaften, Leibniz Universität Hannover, Gottfried-Wilhelm-Leibniz-Gesellschaft, Leipzig and Hannover, Germany, June 2016.

**Skills:** understanding of formal languages (mathematics, logic) + systematic definition of problems by posing relevant questions with attention to details + creative problem-solving + academic writing (use of the software system for scientific document preparation LaTeX) + grant writing + project planning and goal setting + communication and public speaking

### **Researcher at Centro de Investigaciones de la Facultad de Filosofía y Humanidades, Universidad Nacional de Córdoba**

March 2009 – June 2022

*Faculty Research Center*

- As a member of different research teams, I have been actively involved in the organization, design, and execution of scientific projects in the Philosophy of Mathematics, Philosophy of Sciences, and Logic. I have published papers and abstracts - individual and co-authored - and participated in local and international academic events (scientific talks, seminars, conferences, etc).
- Most recent project: "Acciones y prácticas en filosofía de la lógica y filosofía de la práctica de la matemática"

**Skills:** search, reading, and evaluation of specialized texts + collaborative writing of scholarly articles + constructive criticism + argumentation and exchange of ideas + creative problem-solving + project planning and goal setting + grant writing

### **Professor at DGES Ministerio de Educación de la Provincia de Córdoba**

April 2019 – March 2022

*Higher education teaching institutes network*

- Professor of "Scientific Production" of physics science high school teacher training program. Delivered lectures to undergraduate students on topics such as methodology of scientific research, dynamics of scientific development, science and technology, science and society studies, scientific education, education for sustainable development, and public communication of science
- Professor of "Philosophy of Sciences" of the biology science high school teacher training program. Delivered lectures to undergraduate students on topics such as epistemology and methodology of scientific research, testing of scientific hypotheses, scientific experimentation and observation, dynamics of scientific development, philosophy of scientific practices, and education

**Skills:** curriculum development + lesson planning + transfer of subject-specific knowledge + mentoring + leadership + conflict resolution + constructive criticism + verbal and written communication + facilitation and moderation of classroom discussions

## Skills

Tech Skills: SQL, Python, Numpy, Pandas, Seaborn, Matplotlib, Keras, Scikit-learn, Pytorch, Flask, Docker, AWS

Agile Methodologies: Scrum, Kanban

Other Tools: Trello, Asana, LaTeX, VSCode, Git, GitHub, Jupyter Notebook

Languages: Spanish: Native, English: Fluent, German: Basic

## Education

### National University of Cordoba (Postgraduate Studies)

Doctor in Philosophy

At the examination stage, expected to defend in May 2023

### Anyone AI

Machine Learning Engineer

2023

### National University of Cordoba (Graduate Studies)

Licentiate in Philosophy

2014

## Certifications

Metodología ágiles para gestión de proyectos – **Academia 3E**

2022

BIG DATA – **ICT Huawei**

2022

Tecnologías de Telecomunicaciones IP – **ICT Huawei**

2022

Diversidad TIC – **Tecnored y Centro G+**

2022

Todos aprenden 5G Avanzado – **ICT Huawei**

2021

TI- Conocimientos básicos – **ICT Huawei**

2021