

Eric Rubiel Dolores Cuenca

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English (Fluent), Spanish (Native) | Mexican | <https://github.com/Rubiel1>

WORK EXPERIENCE

Senior Data Scientist at NewSci, LLC Aug, 2019-

- Develop machine learning technologies using Google Cloud Platform.
- Use analytics to optimize NewSci's ML products.
- Lead of a project on images with 4 channels:
 - Designed a **new algorithm** to identify fluffy images with 4 channels.
 - Improved a pre-process from 99.510616223 seconds per image to 64.7019678752 seconds per image, saving 9425.4 dollars per year per gpu.
 - Rewrote a Convolutional Neural Network-based algorithm to increase the performance from 80% to 95% correct outputs as measured by humans.
 - Wrote/trained an auto labeler, that took human labeled samples and created new labels with 99% precision.
 - Adapted pix2pix and pix2pixHD algorithms to solve our client's problems.
- Lead experiments of NLP on the arxiv database:
 - Trained an algorithm to write math abstracts.
 - Trained a word to vect to identify related math topics to a given input.
- Consultation to the Department of Geography at FSU.
 - Participate in bimonthly meetings to discussing possible ML projects with geographical data.
 - Cotutor two undergraduate students on their Undergraduate Research Opportunity Program's project analyzing Tropical Forest data.

SKILLS

- Specialization: **Deep Learning**, a 5-course specialization by deeplearning.ai on Coursera. Specialization Certificate earned on April 30, 2019.
- Specialization: Data Engineering, Big Data, and Machine Learning on **GCP**, a 5-course specialization by Google Cloud on Coursera. Specialization Certificate earned on July 30, 2019.
- Coding: Python 3, Sklearn, Keras and Pytorch. Experience with BeautifulSoup, C, Pyro, SAS and HTML.
- Data Visualization: Tableau, CartoDB and Altair.

EDUCATION

Florida State University

Postdoctoral Research Associate. January 2018 - July 2019

- **Coordinator**, writer and animator on E-Book group project on Machine Learning and Quantum Computing mendozacortesgroup.github.io/MachineLearningForHumans/.
- In silico design of Metal Organic Frameworks. I found that approx. 60% of the data had problems, I implemented a pipeline that produced energy graphs at different stages to certify the quality of the data. We created approx. 100 k MOF.
- Tutor, Undergraduate Research Opportunity Program. I guided two undergraduate students to create a dictionary based on the Urban Dictionary. After WebScrapping the data, they wrote a program in Python that finds words in a text and replace them with the Urban Dictionary definition.

Northwestern University

Ph.D. in Mathematics. June 16, 2016

- Paper submitted: Convergence of Taylor Series of real normed division algebras arXiv:1810.02878
- Courses Audited: Introduction to Algorithms, Design and Analysis of Experiments, Data Structures and Management.

AWARDS

- **Winner** of the international contest and art event Adaptation in the category Environment + Data. I used Python3 and Maya to animate 3-d scans of people based on environmental data. Berlin, **Germany**, June, 2017
<http://agile-iot.eu/adaptation/environmentDataWin.html>

COMMUNITY ACTIVISM AND INTEREST

- Machine Learning Consultant: I provided machine learning algorithms to activist groups in Mexico looking for missing people. Currently, we are discussing the implementation with the local police.
- Workshop speaker: 'Deep learning para aplicaciones científicas', from August 5 to August 9, 2019, 30 hrs, at CICATA: The Research Center for Applied Science and Advanced Technology.
- Coordinator of Yosoy132 Artistas Internacional: I **led** an international, cross-functional team protesting violence against women in Mexico. While in the team, I coordinated cultural projects such as:
 - A book of indigenous Mexican poetry <http://goo.gl/SfalKc>.
 - Exposition on Pilsen Open Studios, Oct 20-21, 2012, Chicago.
 - Represented our organization at National Student Power Convergence 2013, Wisconsin, USA.
- Volunteer at AccessibleNU: I tutored two students with **disabilities** on math courses. They got A's after working with me while other students quit the class.
- Volunteer at ChiHackNight: **Web scraping** to obtain information required to the local projects.
- Chess Instructor: 4th Annual Mid-Atlantic Grade Championships. Our team **won** First place in the category for 9th grade, and Second place in the category for 11/12th grade, 2017.