

Silvano Bernabel

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EXPERIENCE

CUNY Institute for Computer Simulation, Stochastic Modeling & Optimization, New York, NY

- Research Program Manager

Aug 2018 – Feb 2020

Developed machine learning models to classify medical imaging data. Developed techniques to reduce bias and variance in modeling utility functions. Implemented an algorithm to cluster data in a connected network.

- Research Assistant

Jun 2015 – Aug 2018

Assisted faculty in academic research, writing papers, and grant preparation. Developed a data-driven simulator inside of which I build models to control a virtual bike sharing network. Used stochastic gradient descent to update an online decision model inside the simulation.

Hunter College, CUNY, New York, NY

- Adjunct Lecturer, Computer Science Department

Sep 2016 – Dec 2017

Taught fundamentals of discrete concepts for Computer Science students, such as Logic, Mathematical Induction, Probability Theory, Number Theory, Combinatorics, and Group Theory. Also taught first level design of object-oriented programming and abstract-data structures with C++.

TOOLSET

Python, Pandas, Keras, Scikit-learn, SQL, Linux, Bash, Java, MATLAB, C, C++, OpenMP, OpenACC, Jupyter, TensorFlow, AWS, GCP

PUBLICATIONS

- [1] F. J. Vázquez-Abad, S. Bernabel, D. Dufresne, R. Sood, T. Ward, D. Amen, “Deep Learning for Mental Illness Detection Using Brain SPECT Imaging,” *International Conference On Medical Imaging And Computer-Aided Diagnosis*, Oxford, UK, Jan 2020.
- [2] F. J. Vázquez-Abad, S. Bernabel, and M. Fu, “Data-driven adaptive threshold control for bike share systems,” in *Winter Simulation Conference*, Las Vegas, Nevada, USA, Dec 2017.
- [3] F. J. Vázquez-Abad, S. Bernabel, “Stochastic path optimization for robotic bees using cloud computing,” in *13th International Workshop on Discrete Event Systems*, Xi’an, China, May 2016.

EDUCATION

The Graduate Center, CUNY, New York, NY

- Ph.D. in Computer Science

Sep 2020

Hunter College, CUNY, New York, NY

- M.A. in Pure Mathematics

Aug 2013 – Dec 2015

City College, CUNY, New York, NY

- B.E. in Electrical Engineering

Aug 2000 – Jun 2006

PROFESSIONAL AFFILIATIONS

American Mathematical Society, Mathematical Optimization Society, Society for Industrial and Applied Mathematics

LANGUAGES

English: Fluent, Spanish: Native language

REFERENCES

Professor Felisa J. Vázquez-Abad

Executive Director, CUNY Institute CoSSMO

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