Tamiro Villazon Scholer

Boston, MA | 443-894-9579 | tamiro.villazon@gmail.com

linkedin.com/in/tamiro-villazon | github.com/Tamiro2019 | tamiro2019.github.io

SKILLS

Programming: Python, Matlab/Octave, Mathematica, C++, Java, Bash, SQL, Git

Tools: AWS, TensorFlow, Scikit-Learn, Pandas, NumPy, SciPy, Selenium, BeautifulSoup, Docker, Flask

Quantitative: Signal Processing, Stochastic Optimization, Experimental Design, Time Series

Machine Learning: Linear & Logistic Regression, SVM, PCA, K-Means, Neural Networks (MLP, CNN)

EXPERIENCE

Data Science Fellow, *Insight,* Boston — Sept 2020 - Present

- Built and deployed a web app using Flask and AWS to help inexperienced singers avoid vocal damage, giving immediate feedback when detecting excessive pressure on the vocal cords.
- Augmented research dataset on vocals using microphone response filters and synthetic noise.
- Developed machine learning CNN model which leverages signal processing to classify vocal modes (breathy, balanced, pressed), outperforming prior models by 15-30% test accuracy.

Graduate Research Fellow, *Boston University,* Boston — Sep 2017 - Jan 2021

- Unlocked new pathways to polarize diamond atoms for quantum computation by identifying 2 types of atomic states in diamond using principal component analysis and k-means clustering.
- Designed an experiment to fully polarize diamond as fast as the quantum speed limit, improving over state-of-the-art experiments by 40% efficiency.
- Constructed a management system using Pandas to set up, run, and organize 2 TB of quantum system simulation results into dataframes, reducing time spent on data wrangling by months.

Graduate Teaching Fellow, *Boston University,* Boston — Aug 2015 - Jul 2017

- Instructed 8 physics courses for 400+ students in STEM, and 50+ Navy ROTC students.
- Mentored 10+ undergraduate physics students.
- Teaching Fellow of the Year (Physics Department 2017).

EDUCATION

Boston University, PhD Physics — Jan 2021

Goucher College, BA Mathematics/Physics — May 2014