Michael Wieck-Sosa

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EDUCATION

University of Illinois at Urbana-Champaign | MS Statistics *Expected May 2022*

- GPA: 3.91/4.00 | Awards: 2-Year Full Tuition Waiver & Stipend through Guaranteed Graduate Teaching Assistantships
- Fall 2021 Courses: PhD-Level Probability Theory II (Stochastic Differential Equations, Brownian Motion – Le Gall), PhD-Level Real Analysis (Measure Theory – Folland), Graduate Statistical Learning, Graduate Advanced Regression (GLMs)

Fordham University – New York, NY | BS Mathematics with Minors in Computer Science & Economics *Graduated May 2020*

- GPA: 3.77/4.00 | Honors & Awards: *magna cum laude*, Loyola Scholarship, Dean's List, Pi Mu Epsilon Math Honor Society

RELEVANT EXPERIENCE

MIT Lincoln Laboratory, Interceptor & Sensor Technology Group | Summer Research Program (12 weeks) *May 2021-Present*

- Optical Signal Processing: Optimizing parameters for statistical signal processing methods in a space surveillance system

University of Illinois at Urbana-Champaign, Department of Computer Science | Graduate Research Assistant *Jan. 2021-Present*

- Data Mining: Analyzing the stochastic process & network structure of how URLs are spread on Twitter, Facebook, & Reddit

National Center for Supercomputing Applications, Software & Data Analysis Group | Programmer (Part-time) *Sept. 2020-Present*

- Time-Series Analysis: Building weighted regressions & plots to analyze time-series of nitrogen discharge from river networks

Corteva Agriscience, Data Science Division | Summer Research Intern (10 weeks) *June 2020-Aug. 2020*

- Time-Series Clustering: Reduced dimension & clustered time-series to study how environment types in the US have changed

University of Michigan, Department of Biostatistics | Summer Research Program (8 weeks) | Poster *June 2019-July 2019*

- Medical Signal Processing: Built CNN model in PyTorch to classify irregularly sampled time-series & attended ML lectures

Fordham University, Department of Computer Science | Volunteer Research Assistant | Poster *Sept. 2018-March 2020*

- Audio Signal Processing: Built & optimized deep learning models in PyTorch to classify noisy audio as coughs or snores
- Computer Vision: Advanced tracker written in C++ with object detection & accelerated with GPU computing cluster
- Time-Series Forecasting: Built parallelized models to predict recessions in the US & interpreted models with LIME & SHAP

Carnegie Mellon University, Department of Statistics | Summer Research Program (10 weeks) | Poster *June 2018-July 2018*

- Interpretable Models: Built GLMs & plots in R to analyze patterns in human trafficking & attended Statistics lectures

QUANTITATIVE FINANCE ACTIVITIES

- Winner of 2021 JPMorgan Data Hackathon: did data wrangling & time-series analysis with 9 hours before presenting
- Participant of 2021 Two Sigma New Seekers Summit: explored aspects of Quantitative Research roles over 2 full days
- Member of Investment Group at Fordham: discussed investing and participated in paper trading competitions
- 3 years of experience doing quantitative analysis and identifying alpha for algorithmic trading / paper trading
- 2020 Election Prediction based on Analysis of Twitter (Group Project for CS 598 at UIUC) – Interactive Website, Code

SKILLS

- Programming Languages: Extensive experience in C++, Python, R, MATLAB, and proficient in C, C#, VBA, Java, Stan
- Libraries: NumPy, Pandas, PyTorch, TensorFlow, Scikit-Learn, NLTK, Dash, Shiny, Folium, tidyverse, ROS, OpenCV
- Frameworks: MySQL, PostgreSQL, MongoDB, Hadoop, Spark, MapReduce, Flask, Slurm, EC2, Linux, Docker, Git, Bash

Last Updated June 15, 2021