

Daniel A. Quezada

714-858-1125 | daquezada19@gmail.com
linkedin.com/in/daniel-quezada | github.com/DQ4781

EDUCATION

California State University Fullerton

Bachelor of Science in Computer Science

Fullerton, CA

Aug 2022 – Dec 2024

Fullerton College

Associates of Science in Computer Science & Mathematics

Fullerton, CA

Aug 2019 – May 2022

EXPERIENCE

CEDDI Research Lab

Undergraduate Research Assistant

Fullerton, CA

May 2022 - Present

- Assisted in the development of machine learning models for the prediction of disease outbreaks & natural disasters
- Contributed to writing & editing of scientific manuscripts for publication at various conferences
- Provided training & mentorship to new lab members, facilitating their onboarding & development
- Participated in regular research meetings and seminars, presenting work and receiving feedback at conferences

PROJECTS

Disease Prediction Machine Learning Model | [Code](#)

Jan 2023 - May 2023

- Developed Random Forest & XGBoost classifier models to predict Lassa Fever cases in Nigeria
- Performed feature engineering with Pandas, including label encoding & feature normalization
- Identified key predictors of outbreaks through SHAP analysis, guiding targeted public health interventions
- Achieved model accuracy of 0.93 with an AUC of 0.90 on test data

Infectious Disease Dashboard | [Code](#)

Aug 2022 - Dec 2022

- Built a mobile-friendly web-based dashboard app that monitors and tracks MPOX infections using Python
- Enhanced insights with Plotly to create interactive visualizations such as choropleth maps & filled area plots
- Presented at National Conference of Undergraduate Research (NCUR) 2023
- Accepted for publication at IEEE GHTC 2023 Conference

Agent-Based Model for LF Outbreaks | [Code](#)

May 2022 - Aug 2022

- Designed an epidemiological stochastic agent-based model that tracks how Lassa Fever spreads using Python
- Developed SIR graph visualizations using Matplotlib based off collected data points
- Identified various strategies that demonstrated a 50% or greater decrease in infection rates between susceptible hosts

TECHNICAL SKILLS

Languages: Python, SQL, C++, C, HTML, \LaTeX

Developer Tools: Git, VS Code, Postman, Jupyter Notebook, Google Colab, Anaconda

Libraries: Tensorflow, Keras, PyTorch, Pandas, NumPy, Scikit-Learn, Flask, Matplotlib, SHAP

PUBLICATIONS & PRESENTATIONS

- **D. Quezada**, “Data-Driven Real-Time Infectious Disease Surveillance App and Dashboard”, Poster presented at the National Conference of Undergraduate Research (NCUR), Eau Claire, WI, April 2023.
- **D. Quezada**, S. Akwafuo, S. Halyal, “Harnessing Machine Learning for Early Warning Systems: A Case Study on Lassa Fever Outbreaks in Nigeria”, Presented at the Southern California Conference of Undergraduate Research (SCCUR), Fullerton, CA, November 2023.
- **D. Quezada**, S. Akwafuo, A. Wattamwar, “Real-Time Hybrid Dashboard and App for Mpx Outbreak Surveillance,” in *Proceedings of the 2023 IEEE Global Humanitarian Technology Conference (GHTC)*, Radnor, PA, USA, 2023, pp. 433-439, doi: 10.1109/GHTC56179.2023.10355026.