Barbara Benitez
Data Scientist

in **LinkedIn**

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☎ (713) 822-2007

◉ Houston, TX

Barbara-benitez.github.io

EDUCATION

PhD in Mathematics

University of Houston

📅 August 2008

◉ Houston, TX

SKILLS

Machine Learning

Statistical Analysis

Data Visualization

Advanced Mathematics

Programming

Data Wrangling

EXPERTISE

Python (NumPy, Pandas, Scikit-Learn, Seaborn, Matplotlib)

Supervised Learning:

- Regression: linear, decision trees, random forest, SVR, gradient boost
- Classification: logistic regression, decision trees, random forest, SVC, PCA, Naïve Bayes, KNN, XGBoost, MLP

MATLAB, SQL, HTML, LaTeX, Excel, Tableau, Google Sheets

Recent Modeling Projects

- **Alzheimer's Prediction**
- **Wine Quality Identification**
- **Electricity Pricing**
- **Fraudulent Bank Charge Prediction**
- **Heart Disease Prediction**
- **Image Identification**

- Data cleaning and preprocessing: handle missing, duplicate values, encode categorical values, normalizing and scale dating, feature engineering (PCA), VIF for eliminating multicollinearity, documentation of all processes
- Create pipelines for models
- Cross-validation and hyperparameter tuning
- Evaluation of models using accuracy, precision, recall, F1
- Execution of regression and classification models

Associate Professor of Mathematics

Houston Christian University

📅 August 2008 – current　　◉ Houston, TX

- Development and teaching of math courses in Calculus, Linear Algebra, Statistics, Biostatistics, and Differential Equations
- Data collection and summary for accreditation of the math program
- Perform routine analyses of math program and courses to identify opportunities for improvement and growth
- Evaluated and mentored junior faculty members

Senior Actuarial Analyst

Mellon Bank

📅 1998-2002　　◉ Houston, TX

- Supported a team of actuaries and performed data valuations for defined-benefit and defined-contribution plans
- Used internal data sources to perform statistical modeling to determine pension benefits using mortality and other risk factors
- Responsible for data cleaning and preparation for advanced modeling using Excel and proprietary software
- Used valuation results to summarize pension valuations and present them to clients