IVONNE MARTINEZ

☏ (210) 997-5062
✉ ivonne_martinez@g.harvard.edu
⌂ Boston, MA 02143

EDUCATION

Harvard University
M.S. in Data Science 2023

The University of Texas at Austin
B.S. in Mathematics 2021
Elements of Programming Certificate.
Elements of Data Science Certificate
Elements of Computational Engineering Certificate.

TECHNICAL SKILLS

Python
SQL
R Programming
C++
GitHub
Rest API
Google Cloud Platform (GCP)
AWS

AWARDS

2019 Hispanic Scholar
2020 McNair Scholar
2020 Alliance Predoctoral Scholar
2021 Amazon Robotics Fellow
2021 HACU ¡Lánzate! Award

LEADERSHIP EXPERIENCE

Harvard IACS Graduate Advisory Committee Co-Chair
Provided strategic direction and developed Diversity, Inclusion, and Leadership projects for 150 students while collaborating with students, faculty, and staff.

LinkedIn: www.linkedin.com/in/ivonneam
Github: https://github.com/ivonnem3

EXPERIENCE

Amazon Robotics
APPLIED SCIENTIST 1 INTERN | May 2022 -Aug 2022

- Implemented a sensitivity and uncertainty analysis on existing metamodel to automated design configurator reduction while optimizing KPIs
- Developed internal data pipeline by using RestAPI to create simulation scripts and scrape data
- Collaborated with engineering team and manager to identify project framework and ensure smooth integration into existing pipelines.

University of Colorado Boulder Atmospheric and Oceanic Science Department
DATA SCIENCE RESEARCH INTERN | May 2021 - Aug 2021

- Conducted ice concentration simulations using the Earth System Model
- Regridded and filtered multi-dimensional data sets to optimize data analysis and model visualization
- Developed machine learning algorithm to classify the ice concentration stages for different timeframes

Trend Micro
RESEARCH AND DEVELOPMENT INTERN | June 2020 - Aug 2020

- Used Postman to create RestAPI functions to scrape Forescout CounterAct
- Built Python script to prompt HTTP Request and create a CSV file
- Mastered and implemented the agile methodology throughout the internship project development process

PROJECTS & RESEARCH EXPERIENCE

Autoencoders for Dimensional Reduction in Single-Cell Data | *Spring 2021*
Researched and developed an autoencoder machine-learning algorithm for dimensional reduction in single-cell data. Assessed multiple tests on a dataset of 30,000 single-cell RNA sequence observations on a 4,000-dimensional response

Analysis of Traffic Accidents in New York City | *Fall 2022*
Implemented logistic regression, random forest, and boosted trees to determine contributing factors of accident severity in NYC using a database of over 2M traffic accidents. Developed a DBSCAN clustering model to identify spatial clusters of fatal accidents.

The Great Vase Race: Machine Learning Approach for Image Recognition Of Ancient Greek Vases | *Spring 2023*
Developed a machine learning pipeline for visual recognition of 6,696 Greek Vase images. Machine learning pipeline was created collaboratively to implement the following methods; Convolutional Autoencoder for latent representation, K-means algorithm as a labeling tool, and a Vanilla Convolutional Neural Network to obtain a resulting Saliency map for examination.