BENJAMIN MALDONADO

SOFTWARE ENGINEER

CONTACT

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📍 New York, NY

SKILLS

Distributed Systems Design/Implementation

Java, Python, C++ Software Development

ML/AI Libraries: Apache Spark, Pandas, Numpy, SciKit-Learn, PyTorch

AWS Cloud Computing: Lambda, EC2, S3, Glue, Dynamo DB, Sagemaker

Software Development: CI/CD, Git, Unit-testing, Algorithms, Data Structures, Frameworks

EDUCATION

M.CS in Computer Science
Miami University   **GPA:** 3.79/4.0
Oxford, OH

B.S. in Computer Science
Miami University   **GPA:** 3.91/4.0
Oxford, OH

Magna Cum Laude

College Honors with Distinction

Honors Thesis: *"Guiding Prevention Initiatives by Applying Network Analysis to Causal Maps of Adverse Childhood Experiences and Adolescent Suicide"*

Honors Advisor: Dr. Philippe Giabbanelli

HONORS

Computer Science Student of the Year	**2020**
Miami Summer Internship Award	**2020**
Accenture Scholarship	**2022**
Eagle Scout with Bronze Palm	**2018**
Hope Scholarship	**2021**
Lawrence J. Prince Scholarship	**2023**
Diversity Scholars Scholarship	**2023**
Google Latinx Student Leadership Summit Invitee and Attendee	**2022**

OBJECTIVE

A dedicated, adaptable, and purpose-driven software engineer with a passion for continuous learning and a strong foundation in cloud architecture, software engineering, and data science. Excited to utilize expertise in developing innovative solutions and products at the convergence of technology, cloud computing, and artificial intelligence. *Special love for tackling problems in the health and biotechnology space.*

WORK EXPERIENCE

Software Development Engineering Intern
Amazon Web Services   May 2023 - Aug 2023
New York, NY

- Developed high-visibility AWS application to fix product reliability problems.
- Worked within a low-latency and high-throughput anomaly detection system with dozens of deep learning models that are retrained daily on customer data.
- Implemented system to automatically apply statistical methods to detect false positive anomaly findings caused by mal-formatted input data.
- Decreased security engineer debugging phase by several hours and reduced number of incoming customer complaints about false positive scenarios.
- **Skills:** Apache Spark, AWS Glue, Dynamo DB, S3, Lambda, Java/Scala, Typescript

Software Development Engineering Intern
Amazon Web Services   May 2022 - Aug 2022
New York, NY

- Researched and tested machine learning model serving platforms.
- Rigorously verified these platforms according to team domain requirements of low-latency, high-throughput, and system stability.
- Created parallel load testing system to test platforms under realistic load.
- Collected comparative metrics on various systems and delivered resulting metrics in a report to the team.
- Utilized the highest-performing platform, lowering load times between daily model re-training by 7% in production.
  - **Skills:** Python, Javascript, AWS Sagemaker, S3, Lambda, Unit-testing, CI/CD

Research Engineer
Miami University   May 2022 - May 2023
Oxford, OH

- Co-developed adolescent suicide simulation model alongside experts from the Centers for Disease Control and Prevention (CDC)
- Designed Python-based simulation model and ensured model fidelity to the most recent research on adolescent suicide.
- Applied machine learning principles to optimize model parameters based on the most updated suicide/attempt/ideation statistics.
- Constructed a PHP-Laravel based web architecture to efficiently serve the simulation model to the CDC experts, with key features such as a SQLite database, parallel simulation execution with Redis, and Docker containerization.
- Delivered model and platform to CDC with approval of all features.
- **Skills**: PHP (Laravel), Python (Numpy, Matplotlib), Docker, Nginx, Redis, SQLite