# Lyneisha Williams

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#### **EDUCATION**

#### University of Southern California

Los Angeles CA

Bachelor of Arts

08/2021-05/2024

**Mathematics** 

Relevant Coursework: Data Structures and Algorithms, Object-Oriented Programming, Discrete Mathematics, Enterprise Data Architecture, Data Analysis in Python, and Numerical Methods

# **EXPERIENCE**

## **Research Data Assistant** | University of Washington | Python, R

10/2024-04/2025

- Processed and cleaned data collected from the surgeries of over 1,200 patients
- Built a Python-based Recurrent Neural Network via Keras to analyze Train-of-Four (TOF) data for detecting neuromuscular recovery
- Utilized regression techniques to enhance model accuracy and support predictive analytics
- Authored technical presentations and abstracts clarifying project scope, determining analytical methodologies, and presenting key findings

## **Software Development Engineer Intern** | Amazon | *Java*

05/2023-08/2023

- Developed and deployed scalable backend services using AWS Lambda and REST API endpoints to automate DevOps code monitoring and project tracking
- Integrated Jira ticketing system and enabled data exchange via SNS for code review and release workflows, supporting a team of 15+ engineers
- Authored design documentation clarifying project use cases, designing the application architecture, identifying necessary dependencies, and planning the implementation
- Participated in Agile development using Scrum methodology to deliver bi-weekly sprint deliverables

# **PROJECTS**

## Mountain View Homeless Coalition Case Study | SQL, Oracle19c

- Designed, built and implemented **object-relational database** applications using **Oracle** 19c
- Performed data definitions (DDLs) and data manipulations (DMLs) using SQL
- Optimized existing SQL production level data pipelines
- Performed physical database optimization informed by transaction analyses

## AI Hacks Datathon @ UPenn | Python

- Developed content-based recommender system for behavioral healthcare startup
- Built model implementing content-based filtering to recommend patient video content
- Utilized metrics such as patient watch history, video tags to weight video similarity
- Calculated best fit videos based on cosine similarity of past videos and prospective videos
- Resolved data inconsistencies through extensive and meticulous data cleaning

## Video Game Sales Predictor | Python, Flask, React

- Developed full-stack web application using Flask and React
- Performed predictions on video game trends using scikit-learn and Matplotlib
- Presented predictions on developed web application, allowing users to adjust projections

#### **SKILLS**

- Languages: Java, Python, SQL, C++, JavaScript, HTML/CSS, MATLAB
- Developer Tools: Oracle, Amazon Web Services, Git, Visual Studio Code (VS Code), PyCharm, IntelliJ, JIRA, Confluence, Docker