# Barbara Ribeiro

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## WORK EXPERIENCE

**Quick Tap Rugby Analytics**                                                                              **Ann Arbor, MI**
*Software Intern*                                                                                              *May – August 2024*
- Crafted new queries for the analytics page using existing CTEs to Amazon RDS, efficiently providing field possession distribution statistics, leveraging AWS Lambda for rapid prototyping.
- Developed customizable key bindings with Typescript to streamline the tagging process.
- Directed quality assurance efforts by identifying bugs and forecasting user needs.

**Boxwood St. Louis**                                                                                          **St. Louis, MO**
*Landscaping Lead*                                                                                           *January – April 2025*
- Led a team of 3 to complete yard installation projects ensuring quality and adherence to project specifications and deadlines.
- Coordinated upkeep tasks for previous projects, including pruning, mulching, and general maintenance, to ensure ongoing project success and client satisfaction.

## PROJECT EXPERIENCE

**Dockerized CDC Pipeline**                                                                                       *May 2025*
- Created a Docker network for Debezium and MySQL, MongoDB, Redis, and Cassandra databases leveraging Dockerfiles, SQL scripts, and Python scripts to automate the deployment and management of containers.
- Managed CDC using Debezium to capture changes from MySQL and propagate them downstream ensuring real-time data synchronization and consistency.

**Monthly Retail Trade Survey Data Pipeline**                                                                   *March 2025*
- Automated data extraction using Python to efficiently remove unnecessary columns, reorganize aggregates, and convert data to long format from Excel spreadsheets.
- Designed an ERD and implemented it in MySQL using an installation script to load and organize the cleaned data.
- Explored spending patterns to identify trends, calculate percentage changes, and analyze rolling time windows with SQL queries, pandas, and matplotlib.

**Housing Price Predictive Model**                                                                           *February 2025*
- Preprocessed housing data with Python and pandas, handling missing values, categorical encoding, and feature scaling.
- Implemented stepwise feature selection using scikit-learn to optimize the linear regression model, improving performance by 15% based on R-squared values.
- Tested model on external dataset to validate accuracy and generalizability and got an R-squared value of 0.76.

**Player Performance in Professional Rugby Leagues**                                                         *December 2024*
- Extracted data from the It's Rugby website, processed it, and organized it to fit a MSSQL database using Python.
- Applied ANOVA to compare scoring patterns across player positions and leagues, and conducted regression analysis to quantify the impact of position and league on individual scoring performance.
- Analyzed player retention in top-scoring brackets using survival analysis techniques, identifying median tenure and factors influencing player performance longevity.

## EDUCATION

**University of Michigan**                                                                                      **Ann Arbor, MI**
*Bachelor of Science in Computer Science*                                                                        *May 2024*
GPA: 3.47 / 4.00
Relevant Coursework: Database Management Systems, Web Systems, Data Computing, Statistics and Data Analysis, Computer Networks, Intro to Machine Learning, Applied Linear Algebra, Computer Pragmatics

**Massachusetts Institute of Technology**                                                                          **Remote**
*Graduate Certificate in Data Engineering*                                                                   *January - August 2025*

## SKILLS

*Programming Languages:* Python, SQL, Java, Bash, Javascript/Typescript, R, C++, C#
*Tools:* Postman, dbt, Docker, Firebase, MySQL Workbench, Jupyter, Make, JIRA, Github, Strapi, Bootstrap, Debezium
*Languages:* English (fluent), Portuguese (fluent), Latin (translational proficiency), Koine Greek (translational proficiency)