

# LONG NGUYEN

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## TECHNICAL CAPABILITIES

**Tools:** Programming Language: Python (numpy, pandas, matplotlib, scikit-learn), SQL (DDL, DML), R (tidyverse, dplyr, ggplot2, caret); Data Visualization: Tableau, Power BI, Excel; Cloud: AWS (S3, Redshift); Big Data Technology: Spark, Databricks  
**Skills:** Statistical Analysis, Predictive Modeling, Machine Learning (Clustering, Classification, Regression), Data Modeling

## SELECTED PROJECTS

**Data Analytics:** Behavioral Segmentation for a hotel and resort company

- Built a K-means clustering model in **Python** on a hotel and resort dataset of > 80k customers to segment them into different behavioral groups, and provided key strategies to enhance customer experience and maximize revenue for each segment.

**Machine learning:** [Mental health classification \(Python\)](#) | [Alternative implementation in R with statistical analysis](#)

- Deployed 5 predictive models in **Python** to determine whether a tech employee sought mental health treatment, with SVM attaining a leading F1 score of 75% and an accuracy of 74.6%.

**Data Engineering:** [NYC bike tracking forecast](#)

- Led a team of four in developing an end-to-end **ETL** pipeline, employing **PySpark** to create bronze, silver, and gold data tables; Achieved a 70% accuracy rate in building a forecasting model using Prophet for the Citibike Bike Sharing app on **Databricks**.

**Data visualization:** [Visualization of layoffs across industries](#)

- Created an interactive dashboard with descriptive statistics and a world map showcasing layoffs across industries in **Tableau**.

## PROFESSIONAL EXPERIENCE

### UNIVERSITY OF ROCHESTER

Rochester, NY

#### Teaching Assistant

Aug 2023 - Dec 2023

- Mentored students in diverse statistical areas: descriptive statistics, probability and distribution, confidence intervals, hypothesis testing, inference, ANOVA, and regression analysis.
- Led 10 review sessions for exams and projects, resulting in an 80% increase in students' overall grades.
- Empowered students in understanding **R** packages and creating impactful reports with **RMarkdown**.

### REL8ED.TO ANALYTICS

Rochester, NY

#### Data Science Intern

Jul 2023 - Aug 2023

- Led an end-to-end project to classify >100K N.A companies into industries with 85% accuracy using **Python** and **OpenAI**'s embedding model, saving over \$500K in manual processes and paving the way for future LLM implementations.
- Developed an automated scraper for 10M companies' homepage data using **Python**, stored in JSON format, collaborating with the software team to create a seamless API, resulting in a substantial 90% reduction in data retrieval time.
- Built 6 comprehensive sales performance dashboards using **Tableau**, resulting in a 15% increase in revenue for the clients.

### LEAFPRINT ENTERPRISES

Cedar Hills, UT

#### Data Analyst Intern

Jan 2022 - May 2022

- Developed intricate dictionaries and efficient data models using **SQL** for World Archive's geographical data, contributing to a 30% enhancement in data organization efficiency.
- Created detailed documentation for **Python** scripts and **SQL** queries, facilitating smoother collaboration and enabling seamless project understanding, ultimately leading to a 40% reduction in onboarding time for new team members.

### BENIT PTY LTD

Hanoi, Vietnam

#### Data Analyst Intern

Mar 2021 - Jul 2021

- Built **ML** models on historical data of > 1M users using **Python** to segment users into different behavioral groups, and predict user lifetime value, enabling better product strategies, user engagement, and acquisition plans.
- Led 2 company-wide analytics projects in cross-app user behaviors, subscription optimization, and ad revenue prediction, contributing to an increase in user engagement by 10%, and ad revenue by 15%.
- Designed and analyzed 5 **A/B** tests, assisting product managers in making data-driven decisions on product improvement and revenue optimization.

## EDUCATION

### UNIVERSITY OF ROCHESTER

Rochester, NY

**STEM Master of Science in Data Science - GPA: 3.63/4.0**

Winter 2023

### AUGUSTANA COLLEGE

Rock Island, IL

**Bachelor of Arts in Applied Mathematics - GPA: 3.77/4.0**

Summer 2022